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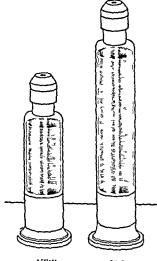
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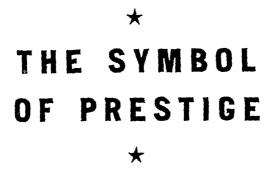
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(1) 1924, Commercial Fruit and Vegetable Products, W. C. Cruess, McGraw-Hill, New York (2) 1924, A complete Course in Canning, The Canning Trade, Baltimore

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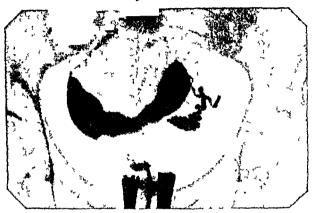


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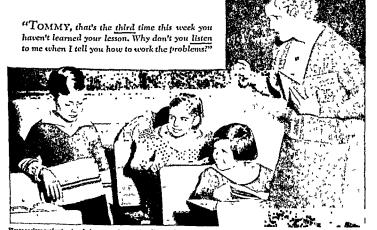
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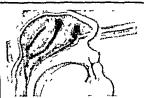
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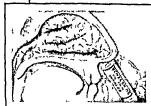


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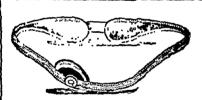
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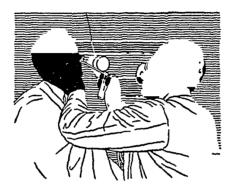
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THE GENESIS OF RENAL CALCULI Pathological-Physiological Considerations

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When one undertakes an appreciation of the problem of the etiology of stone in the upper urinary tract, one is confronted by the fact that it appears to be increasing in its complication rather than in its simplification. Yet, when one tabulates the actual theories relative to the causation of renal calculus, it is interesting to find that, in spite of their wide divergence, they are after all rather closely interrelated. It is essential, when elucidating any complex picture, that cause be put to one side, and effect to the opposite side, and it is my effort to try to clarify this one point of cause and effect in our appreciation of stone in the upper urinary tract.

First of all, let us be cognizant of what has happened in our understanding of stone in the lower urinary tract. For centuries considered a disease entity, and operated upon with what surgeons thought success, bladder stone is now looked upon as a symptom and not a disease. There is not a surgeon but will . finish an operation for the removal of stone in the bladder by appreciating that it is a resultant effect and by looking for its cause. Prostatic obstruction, diverticulum, fistula, tumor, and ulcer are looked upon as the primary reasons for such a vesical calculus, and the prevention of its recurrence will depend upon the successful removal of the individual cause.

How often is the surgical problem of a renal calculus approached with a similar understanding of the fundamental pathology? How often, in the course of a difficult exposure, is a causal obstructive factor looked for and corrected? And how often, after the removal of a renal calculus, are steps of a prophylactic nature taken, both at the operating table and during the postoperative convalescence, to safeguard the patient against recurrence? In other words, do we approach every case of renal calculus looking upon the stone as an effect and, in each case, attempt to find a cause? And have we transported our knowledge of the causal factors of stone in the lower urinary tract to an appreciation of what must be similar causal factors in the origin of stone in the upper urinary tract? I think the time is long past due when we should cease to lecture, write papers, and even publish books under the title of "Calculus Disease," for stone in any part of the urinary tract is but a symptom and not a disease entity.

Etiology

Let me briefly review for you the five theories which are current today as reasons why a kidney becomes encumbered with a calculus, for certainly we are all agreed that there must be a basic etiology, of which the stone is but a symptom.

1. Unquestionably, priority belongs to the dietary theory. This causal factor comes to our attention from two separate angles. First, and perhaps of the greatest importance, is the realization that stone of the bladder in childhood has almost disappeared from the picture of surgery. Fifty years ago (and for the period antedating this) it was found in civilized countries as a dominant factor in "calculus disease." It has been pointed out that in England, in 1800, forty-five per cent of the cases of vesical calculus occurred in children under fourteen years

of age. In France over half of the cases of stone in Civiale's clinic were operations on patients under twenty years of age. Today this picture has so changed that in England, France, and America bladder stone in childhood is a rarity. And the only factor to which we can point, as bearing upon the disappearance of this surgical condition, has been a liberalization of the diet of childhood. Children today are fed from infancy on a diet which would have made our grandparents shudder, and this is to be compared to the picture of stone in childhood which still persists in its prevalence in the surgical clinics of the countries where the dietary is still of a variety exceedingly limited, as it used to be in Europe.

The second point under this theory has been the proof that diets deficient in vitamin A are exceedingly prolific of stone formation. The reason given is that such a diet causes certain changes in the epithelium of the urinary tract, which is termed "keratinization." Two things are significant: First, that such stones are consistently formed of calcium-magnesium phosphate, and second, that in experimental animals where stone has been so produced, such concretions have been made to disappear if the diet is changed to one rich in vitamin A. Here it seems we can clearly see cause and effect.

2. The second theory which enters this picture is that of infection. It has been said that if every case of stone were searched to its ultimate end, an infection would be found underlying it. This is probably an overstatement, but, nevertheless, infection unquestionably does play a very definite part in the formation of some stones. There are numerous instances and examples to be cited in relation to this theory, but let me recall to mind Rosenow's work and also the observation of the frequent occurrence of renal calculus in the osteomyelitis cases subsequent to war injuries.

Again, two things are of great significance as regards infection and stone: First, the frequency of infection where epithelial changes due to vitamin A deficiency predominate, and the interrelationship of these two factors: second, the role that infection frequently plays as an etiological factor in the recurrence of renal stone.

3. The third theory is the effect of stasis and faulty drainage. Long a recognized factor in the lower urinary tract, it must likewise play a definite part in the etiology of certain stones in the upper urinary tract. Stone has been frequently watched during its period of actual growth, where occlusion of ureterovesical junction or long-standing ureteral obstruction has produced faulty drainage. Stone has been found in a rela-

tively high percentage of cases where individuals have been bedridden, such as in the care of generalized disease, in the immobilization for fractured bones, and in the care of children with tuberculous lesions of the spine. All these conditions are related to faulty renal drainage and, in addition, are frequently associated with chronic infection and with the recognized decalcification of the bony skeleton, and the loss of calcium during long periods of complete muscular inactivity.

Again, let me accentuate the close interrelation of these three theories—diet, infection, and faulty drainage. It is neither a constant fact, nor it is necessary to expect that every kidney pelvis which is poorly drained, even if also infected, must form a stone. Such is quite comparable to the incidence of bladder calculus as an accompaniment of prostatic obstructions. The failure of stone development in cases where the ideal morbid set-up is waiting is one of the strongest facts that we have to face in the realization that our present theories are not sufficient.

4. Our fourth theory is that fascinating one of disturbance in the colloidal mechanism of the urine which plays a very important role in the body's ability to eliminate insoluble crystalloids in solution in the urine. It is pictured that the urinary colloids carry on their surfaces insoluble urinary crystalloids by what is termed "adsorption." The normal daily amount of the colloid is sufficient for the elimination of the normal daily amount of the insoluble crystalloids. That these urinary salts are present in a supersaturated state in the urine is an important fact, both as regards the function of the colloids and as bearing on the precipitation of the salts in stone formation. For, if one disturbs this so-called colloidal balance by either increasing the crystalloids or decreasing the colloid surface area, there then occurs a precipitation of the crystalloids and their appearance in the urine as actual insoluble material.

Stripped to this simple viewpoint, again let me call to your attention the interrelation of this etiological theory with the three previous ones. For, first of all, infection with its morbid products, and epithelial degeneration, as from the vitamin A deficient diet, are both recognized as reasons for disturbance of the normal colloid mass; and wherever there is an increase in crystalloids, such as occurs in decalcification of the bony skeleton or in faulty bowel elimination, we see the opposite picture of an attempt being made to eliminate more crystalloids than there is assumed to be colloidal surface to hold them in solution. Therefore,

these four theories of stone formation, although each may not be constant or sufficient, are nevertheless closely interrelated

5 Our fitth theory is the recent one, where it has been pointed out that disease of a hyperplastic character in the parathyroids is responsible for decalcification of the bony skeleton and the occurrence of an actual calcium diabetes in the urine. As a result of the studies made at the Massachusetts General Hospital, it is claimed that this factor is present in ten per cent of all cases of renal calculus. Here we are unquestionably getting beyond the urinary tract and finding a causal factor of utmost miportance But when we concentrate our view upon the urmary tract, such hypercalcinum is not of itself a factor that produces a stone It works in well with the theory of colloidal imbalance, for here again we picture an excess of crystalloids over and above the surface holding power of the colloids, and as such, this theory of a reason for stone works in with the four previous ones as an interesting factor but not as an actual causal condition

There seems to be quite a gap between the theoretical mechanism of possible stone formation and our knowledge of its actual causation. I can see reason in these various theories on the etiology of stone that can be of importance as to how a stone may grow, but none of them, to my mind, give a satisfactory reason as to why a stone does occur, where it starts, how it actually originates, and why it is not washed away when still microscopic In the first place it is not unusual to watch a patient with a chronic phosphaturia, a chronic oxaluria or, probably most interesting of all, a chronic cystinuria, in whom, in spite of the persistency of this perversion of the normal, a stone does not form Secondly, we must realize that when a stone does occur in the renal pelvis, it virtually always starts as a umlateral lesion As no one of these theories is infallible in the production of stone, so also the control of no one of them is of unfailing virtue in the prevention of the recurrence of stone It is thoughts such as these which make me feel that these five theories, concerned with the etiology of stone, are all essentially secondary reasons, and none of them can be classed as a primary cause of stone formation Nevertheless, they are of the utmost importance, even as secondary reasons, when one takes up the

subject of the prevention of recurrence, for as such, each one has to be removed from the picture, or it remains as a potential invitation to the growth of a recurrent stone

The difficult part of this problem is to fit into these etiological factors the known variation in the actual chemical character of the stone itself. Such concretions are known to be formed from calcium oxalate. calcium magnesium phosphate, calcium carbonate, and calcium magnesium ammonum phosphate Again, sodium urate, ammonium urate, uric acid, and the rarer salts of eystine and vanthine are found It is easy to see that a disturbance in the calcium metabolism can very readily be a factor in the formation of a calcium stone, but there it must end, and certainly could have no relationship to the formation of a stone of uric acid, a urate or one of the rarer salts

It has been the existence of this multiplicity of theories, with the known divergence of stone chemistry, that has made it difficult for anyone to grasp or formulate a theory for stone formation, and this difficulty. I am sure, has been a reason why surgery has adopted the unfortunate middle ground of speaking of stone disease as an entity and, by so doing, losing all sight of etiology. Such a point of view has, of necessity, made it impractical to adopt any steps toward stone prevention and has led to the regrettable surgical attitude of removing a stone with a clean conscience, and with the feeling that the entire surgical lesion has been corrected

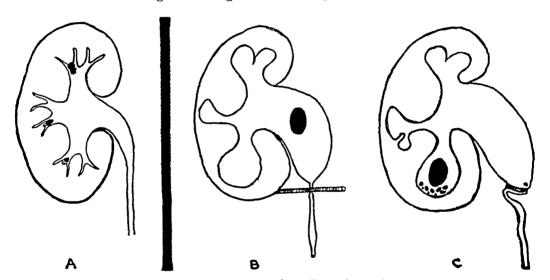
For the past few years I have attempted to explain the inconsistencies in the formation of a renal calculus by trying to separate the picture according to the chemical composition of a stone. This is to say that one would make a separate chapter according to the chemistry of a stone, and then try to write into that chapter a causal factor and perhaps elaborate further on diagnosis, treatment, and prevention In some of our pictures this has not been difficult to do The stone which follows a vitamin A deficiency has been shown to be consistently formed of calcium-magnesium phosphate. The stones which follow hyperparathyroidism have likewise been of a definite chemical char acter, and always a calcium salt

those stones which form in the presence of an infection, which produces an alkaline urine, have been consistently a triple

phosphate deposit.

But, there has been one very definite stumbling block which this mode of approach has not explained, and that is the occurrence of a laminated stone, in which might be a core of uric acid, a second lamination of urates, a third layer of pure oxalate crystals, and even a fourth deposit of calcium-magnesium phosphate. The failure to explain this phenomena has caused me to set aside the pure chemical theorization and to approach the story of stone from a new angle of thought.

renal colic due to a calculus measuring up to a centimeter in size, which has suddenly entered the upper ureter and has obstructed the same. X-ray reveals a shadow, just opposite the lower pole of the kidney. Urography proves this to be a calculus lying in the ureter, and behind it a pelvis that is beginning to show the evidences of primary back pressure. The stone has interesting peculiarities, both on the plate, and on examination after its removal. On the plate it is frequently heart (or arrowhead) shaped or else a long oval, and on examination it is of pure crystalline character, and of a single salt deposit. The arrowhead-shaped stone



A depicts three stages in the growth of a "primary" renal calculus. B and C illustrates the "secondary" renal calculus where obstruction plays the leading role.

Let me present this thought in very brief form. I believe there are but two basic causal factors which are capable of making a stone grow in a renal pelvis. The difference between these two possibilities can be sharply delineated, and the resultant stone shall be termed a "primary" or a "secondary" renal calculus, dependent upon the causal factor at work. (See illustration.)

In the first class or "primary" renal calculi, one finds those cases in which the clinical picture is especially clear, and every physician has experienced such a case in his practice. To it belongs the individual in otherwise perfect health, who is suddenly seized with the clinical state known as calculus colic. Examination finds a man in the throes of a primary

is generally smooth of surface, with a rounded point; while the ovoid stone has a highly crystalline surface, with one end evenly developed and showing sharp crystal points. But, the opposite end of each variety shows every evidence of having been the point of mural attachment, and one can see the cup-like depression which was unquestionably the site of fixation to the pelvic wall.

As I say, this clinical picture is unquestionably familiar to everyone, and one stops to ask these questions:—What caused that stone? How long has it been in existence? Where has it been? And why has it suddenly produced this severe clinical picture?

An answer to these questions I believe to be not difficult of formulation. It is my firm conviction that such a calculus has arisen as a gradual crystallization upon a lesion in the renal pelvis. Somewhere in the renal pelvis, most probably on a papilla, there has occurred a primary ulcerative lesion. It is of small size but with a raw surface, and thereon has occurred, through one of the above theoretical reasons, the precipitation and coalescence of urmary salts. Following the colloidal chemical theory, the salts so precipitated are probably those which, at that time, are supersaturated in the urine As such the deposit starts, and once started, has every reason to gradually merease in size Being so fixed, it gives no symptoms of its presence until, due to some factor, he it trauma, size, weight or sudden motion, it ceases to be a fixed concretion and breaks loose from its point of origin. The next natural course is nature's effort to extrude the calculus. and such extrusion means passage down the ureteral line of dramage, with the result that one sees the patient in his primary ureteral stone colic

A stone of this type is most chiracter istic in its configuration and, time and again, presents itself as a heart shiped concretion, from which one can almost picture that during its period of growth it crystallized about a basic papillary ulceration until, as above mentioned, its size allowed of its being no longer adherent Under such conditions it would be a fore gone conclusion that, when that time arrived, such a stone would break loose, become a freely movable body, and within the space of a few hours, pass from pelvis into ureter and produce the clinical symp-

tom of a Dietl's crisis

One thing remains to be explained, and that is the primary lesion. Here it is my feeling that primary papillary ulceration is of much more frequent occurrence than we have been led to suppose, or even made to think Such ulceration could be either infectious or trophic. In the past our pathologists have routinely examined kidneys at postmortem by opening them from the convex surface in toward the lulus As you well know, it is infrequent that the pulvis is thus competently opened or, if subsequently cut, is completely searched You cannot find in the textbooks on pathology of today any mention of any pathologic condition occurring in the renal pelvis, other than the generalized one of pyelitis or the very self-evident one of tumor The finer pathology of the renal pelvis has yet to be written I would like to emphasize the brilliant work in this respect recently published by Lieberthall and Von Huth, in regard to the prelitic lesions in renal tubercu-This demonstrated fact in renal tuberculosis is pregnant with possibilities in regard to the more frequent occurrence of papillary ulceration in other infectious states. The heart-shaped shadow so characteristic, and so frequently seen in these primary stones, almost invites one to visualize their growth about the apex of a renal pipilla, and if you will take the trouble to examine closely, with a hand lens, one of the characteristic olive pitshaped stones, you will again observe one end typical of freedom, and the other highly suggestive of mural attachment Again, it is interesting to note that these stones are, as a rule, consistently formed of a single urmary salt

In the second class belong the calculwhich form in a renal pelvis in which urinary stasis is present because of some obstruction to the normal urine outflow Examination by urography reveals the presence of hydronephrosis, and the stone grows as a complication of such a static condition It has been the tendency to look at this picture in a reverse order, making the stone the cause of the hydronephrosis, rather than the resultant effect of a hydronephrotic pelvis Such stones are frequently found actually floating and freely movable in their habitat They are nearly always smooth and ovoid. sometimes multiple and faceted and frequently laminated, being composed of diversified urmary salts. To me this picture is so closely akin to the recognized condition as seen in vesical calculus that it should need no further exposition

As the first class, which form as crys tallizations upon papillary ulceration, are termed "primary" renal calculi, so the second class, postulated upon faulty pelvic dramage, are called "secondary" renal calculi. The actual origin of the secondary renal calculi demands nothing more for a nucleus than a cluster of desquamated cells, a bacterial clump or a tiny clot of blood. They are as easily assimilated into our clinical pabulum as the familiar research.

ical stone. On equally parallel lines runs the observed fact that when all the essential factors appear to be present for a stone's growth, it does not, of necessity, materialize.

It remains to be explained why those stones, which are now termed "secondary," are frequently found to be formed of varying chemical laminae. This occurrence should almost be expected rather than, of necessity, be explained. There is no doubt that, in such a supersaturated liquid as the urine, certain salts, at certain epochs, reach the threshold of their insolubility, and precipitate in pure form over a period of time. Under these conditions there will be periods when one type of salt will be more easily precipitated than others, and the laminations will correspond to exactly such periods. Likewise, it is to be recognized that the growth of such stones can and does vary according to the type of deposit then being made, and we are all cognizant of the slow growth of the uric acid and urate stones, as compared to the rapid growth of the earthy and triple phosphate stones.

The factor of supersaturation of a urinary salt becomes of greater consequence the more we dwell on these facts and, as such, lends greater weight to the role of colloidal chemistry.

As this presentation is essentially a clinical approach to a pathologic state, so let us make it work in the reverse order and from the pathologic state of renal calculus deduct clinical applications and guidance.

Preoperative Study

Although borderline cases are bound to occur, it is extremely easy to look at almost any case of well-studied renal stone and decide to which of these two categories it belongs.

Patients with "primary" calculi nearly all enter the clinic in ureteral colic. The one point to be decided is whether to operate immediately or to attempt cystoscopic manipulations. If the stone is in the upper ureter, I am distinctly in favor of prompt ureterolithotomy; if in the lower ureter, I prefer to exhaust instrumental manipulations first.

The "secondary" calculi are essentially intrapelvic, and only when a fragment, or a daughter stone, gets away and into

the ureter, does typical colic occur. Roentgenologic studies in this type show an associated hydronephrosis, which too often is surmised to be secondary to the stone and the blockage therefrom, when actually the reverse is true, and the stone is secondary to the hydronephrosis. With the exception of the reported successful attempts to dissolve such calculi, their cure is essentially surgical. Dependent, as they are, upon an existing hydronephrosis, the surgeon should be more interested in relieving this primary morbid state and saving a kidney than in the mere existence of a complicating calculus.

Operative Deductions

Of the "primary" stones the vast majority will be found as ureteral calculi, though some, of course, get no further than the true uretero-pelvic junction. If our deductions are acceptable, their actual origin depends upon extrarenal causes. For accentuation one is tempted to put them down as due to prerenal causes. The greater number are probably due to focal infections, others to trophic disturbances, some to faulty dietary regimen, and still others to metabolic disorders. Be the cause what it may, the surgical handling is lithotomy, with every care taken not to create thereby the added insult of scar-tissue changes that may develop into obstruction later.

The "secondary" calculi present the real surgical problem. Here the lithotomy is but a step in the proper surgical handling. Keeping ever before us the picture of bladder stone, let us approach each and every case of secondary renal calculus in exactly the same spirit, making the stone of secondary interest, as compared to the acute problem of correcting the primary hydronephrotic state. Here the cause is always intrarenal (intrapelvic), and it is beyond the scope of this paper to discuss the surgical possibilities. But, if correction is not definitely and satisfactorily obtained, let me advise the removal of the kidney, for recurrence is almost a certainty.

I have allowed myself a few closing remarks on the prevention of the recurrence of renal calculi. This phase of the subject has been before us throughout the entire presentation, for until cause is known, prevention is perforce a very uncertain thing. I am trying to study every case of "primary" renal stone as one would study an arthritic—search out focal infection, look for allergic reactions, think of dietary habits, and make the necessary laboratory studies for metabolic disorders. The persistent stone former is a perfect laboratory for active research in this subject. There is a pet theory among some that patients go through a stone-forming age and that, once beyond that age, they cease creating further stones. I would like to suggest that, in all probability, the intercurrent removal of an infected tooth, a bad gall bladder, or some other chronic focal infection has much more to do with the cessation of the stone-forming habit than the mere passage of years. Local pelvic infection must be obliterated by every active means at our disposal, but in addition, let me urge that the patient be studied as a whole, and with the intention of ruling out every possible prerenal factor that may play a part.

The final word on the prevention of the recurrence of "secondary" calculi was said when discussing the surgical handling, for nothing short of perfect drainage of the pelvis and sterilization of the same will give any assurance of success; and let me add that this is at times most diffi-

cult to attain.

MEDICAL ARIS BLDG.

CASE REPORT

ALTERNATING BILATERAL SPONTANEOUS PNEUMOTHORAX COMPLICATING BILATERAL ARTIFICIAL PNEUMOTHORAX

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and

EMIL ROTHSTEIN, M.D., Brooklyn Junior Attending Physician

In the treatment of pulmonary tuberculosis by the use of artificial pneumothorax, one of the complications most to be dreaded is spontaneous pneumothorax. The patient receiving simultaneous bilateral pneumothorax is exposed to this complication twice as frequently, at least, as the usual unilateral pneumothorax patient, and the dangers are even more than proportionately greater.

We are reporting the case of a patient who, while receiving simultaneous bilateral artificial pneumothorax, developed a spontaneous pneumothorax, first upon one side and then upon the other, and sur-

vived both of these accidents.

L. H., female, aged 20, of Irish extraction, was admitted to the tuberculosis division of the Kings County Hospital on July 29, 1934. Her complaints were moderate cough and expectoration, and moderate toxic symptoms (anorexia, weight loss, and lassitude). These symptoms dated back three years, at which time a diagnosis of pulmonary tuberculosis had been made, and since then the patient had been on a modified rest regimen. Her clinical course had shown various periods of remission and exacerbation.

She was a thin undernourished girl, with normal temperature, pulse and respiratory rate. The only significant findings were in the chest, where over each upper lobe anteriorly and posteriorly were present dullness, diminished breath sounds and many moist rales. There were numerous tubercle bacilli in the sputum.

The first x-ray, two days after admission, (Fig. 1) revealed an extensive tuberculosis. On the night the upper lobe showed several moderate sized cavities, rather thick-walled, with little inflammatory reaction, extending to the second rib anteriorly. In the midfield (the third anterior interspace) was a cavity three cm. in diameter, also marked by the absence of perifocal reaction. The upper fourth of the left lung was occupied by several cavities, the largest about four by five cm., with more recent caseation extending to the fourth rib anteriorly.

Because of the extent of the pathology, it was felt that without some form of collapse therapy the prognosis would certainly be fatal, and therefore a plan of simultaneous bilateral pneumothorax was decided upon. According to the classification used in our Tuberculosis division the case was rated as Grade C—last resort case, in which the prograde is appropriate that it is the control of the control of the prograde in the control of the prograde is a section.

of successful collapse are very poor either because of the nature or the extent of the pathology, but in which there exists the possibility of salvaging an otherwise hopeless case by the use of collapse therapy.

Pneumothorax was started upon the left side August 4, the side of greater pathological activity. After a beginning selective collapse of the upper lobe had been obtained with seven refills, averaging 350 c.c. each, the right side was started August 23. During the next ten days an early selective collapse of the right upper lobe was obtained (Fig. 2) in spite of several adhesions. On

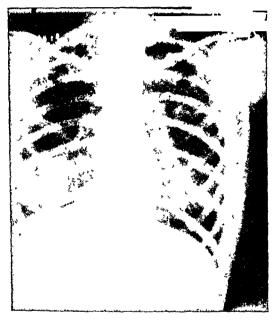


Fig. 1. Film on entry to hospital. Bilateral fibrocavitary tuberculosis affecting chiefly the upper lobes. Large cavity in the center of the right lower lung field

September 4 about one hour after a refill on the right side of 500 c.c., final pressure -6,0, the patient complained of severe right chest pain, marked dyspnea, and cough. Examination revealed extreme dyspnea, cyanosis, the heart far to the left, and slight subcutaneous emphysema of the right chest wall. Spontaneous pneumothorax diagnosed and deflation was performed on the right, the patient already being semicomatose. The intrapleural pressure was plus 10 cm H₂O Four deflations were performed within the next thirty-six hours, with a total removal of 2000 cc. of air. Marked subcutaneous emphysema developed, as far as the midabdomen, face, left chest, and right wrist. However, all symptoms gradually subsided within the next few days. There was no fever or pleural effusion. The x-ray taken a few days later (Fig. 3)

revealed an almost complete collapse of the right lung, with displacement of the heart and mediastinum to the left. The site of pulmonary rupture could not be visualized but it was apparently not through any of the major adhesions or cavities.

After a period of seventeen days, during which the right lung was allowed to expand partially, pneumothorax was again started, refills being given alternately at three day intervals. On September 28 about four hours after a refill on the left of 200 c c., final pressure 0.2 she complained of severe pain in the left chest, and of dyspnea. Ex-



Fig 2 Film showing an early bilateral selective collapse. There are air collections over each upper lobe Complete collapse is prevented by adhesions.

amination revealed cyanosis, dyspnea, and mediastinal displacement to the right. Deflation was performed on the left, the pressure being 8 cm. Six deflations were performed in a period of three days with a total removal of 2700 c.c. Fever developed to 103° F. but gradually subsided within the next ten days. time went on a non-toxic tuberculous empyema developed on this side. X-ray taken spontaneous after the second pneumothorax revealed (Fig. 4) an almost complete collapse of the left lower lobe, the upper being held out by a number of adhesions. The site of rupture could not be definitely identified, but it was not through one of the major adhesions or cavities. The patient's general condition improved and pneumothorax was again started on October 23. At the present writing she is receiving alternate refills on alternate sides at weekly intervals, apparently none the worse for her two harrowing experiences. In spite of adhesions to both upper lobes there is a selective collapse of each upper lobe and closure of the large cavity in the right lower lobe. Although the prognosis is still dubious the patient's chances for recovery are far greater than before the institution of treatment.

Discussion

The use of bilateral simultaneous pneumothorax in properly selected cases is



Fig 3 Film taken after the first spottaneous collapse. There is almost complete collapse of the right lung. The heart and mediastinal structures are displaced to the left, Subcutaneous emplysema of the right chest wall

now sufficiently widespread to require no further comment Spontaneous pneumothorax is one of the most dreaded complications of pneumothorax therapy, even in unilateral cases It presents the danger of immediate exitus from shock or asphyxia, the danger of persistent high-tension pneumothorax as the result of a valvular bronchopleural fistula, and often the development οf a mixed infection empyema with its usually lethal outcome When two lungs are being simultaneously collapsed the danger is immediately doubled. Other factors are also present, making the likelihood of a spontaneous rupture greater than in the unilateral case Some of these are: (1) the need of securing a selective collapse means that as a rule the lower lobes remain expanded, presenting the possibility of direct needle puncture of the lung at each refill; (2) since the bilateral case is usually more advanced than the ordinary undateral one, certain pathological features are more frequent (adhesions, emphysematous blebs, sub-pleural caseous foci), and it is these features that lead to spontaneous pneumothorax; (3) the possibility of an immediate fatal result from asphyxia is



Fig. 4. Film taken after the second spontaneous pneumothorax. Almost complete collapse of the left lower lobe. The upper lobe is held out by adhesions. The heart is displaced to the right.

markedly increased by the already impaired vital capacity,

We feel that in last resort cases with bilateral cavitation of appreciable size there are a number who can be saved by bilateral pneumothorax who would otherwise die. Our experience with bilateral pneumothorax leads us to believe that it is a type of procedure requiring great care as regards amounts of air, pressures, sites of needle puncture, etc. Frequent x-rays or fluoroscopes are imperative. Great patience is needed in the presence of adhesions, for it is especially in attempts to stretch these that accidents will occur.

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THE DIAGNOSTIC SIGNIFICANCE OF GALLOP RHYTHM

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For a long time, I have been struggling with the problem of gallop rhythm. must confess however, that I have been only partially successful in removing the haze from my eyes. I wondered whether it were better to defer publication until greater experience and deeper reflection yielded more light, but on the other hand, withholding thoughts too long subjects them to staling influences, a fact that should not be lost sight of. Hence, the decision to write my present views on the subject of gallop rhythm in the hope that others similarly engaged but better endowed intellectually or having greater clinical or research facilities, may elaborate on my meager contribution, thereby vielding more, in a limited period, than I could, working alone.

Because the subject is complicated hardly justifies one in holding with Bouillaud¹ that it is a *signe de luxe* or in dismissing it with the indifference and resignation of many text writers of the

past and present generations.

Some confusion has arisen because of the emphasis placed on the timing of the extra heart sound in gallop rhythm, and the reference to the presystolic, protodiastolic or mesodiastolic character of gallop rhythm, is frequently met with, in the literature. Practically, we need not go into this matter any more than to say that there are some cases in which the accessory sound is fixed within the cardiac cycle, and others in which its time relationship varies (e. g., when the presystolic becomes a mesodiastolic gallop); the latter resulting from the impairment of conduction from the auricle to the ventricle or from a shortening of the diastole incident to an increased heart rate.

It is essential at the outset to separate true gallop rhythm from the reduplication and splitting of the heart sounds; the latter often mimic the former, but their clinical significance is very different. There are, however, exceptional instances when it is impossible to tell whether a serious gallop rhythm or a harmless split

first heart sound is heard; this fortunately is not the rule. Further observation and repeated auscultation solve the difficulty.

Bouillaud who first heard it called it "bruit de rappel" and Traube described its thumping character, christening it with the name "Gallop Rhythm."²

To those with a flare for instrumental methods, it might appear futile or meddle-some to attempt such clinical studies with the unaided sense of hearing, or that this problem might more profitably be pursued by means of heart sound records. But the fact that the human ear is capable of estimating sound differences of .008 of a second, will emphasize the refinement of the instrument that our Creator has given us, and I hope to show, that uncomplicated bed-side observations made with the ear, if properly interpreted may not be entirely devoid of merit.

What is gallop rhythm? It is a tripling of the heart sounds due to the addition of an extra sound which comes just before the first sound; the intervals between the accessory, the first and second sounds are about equal. The three sounds may for convenience be described as occurring in three-quarter ("waltz") time. This characterization may differentiate it from the other accessory sounds, in which the extra sound is coupled more closely with the first or second heart sound, resulting in an inequality of the pauses between the

accessory and the normal sounds.

The extra sound in gallop rhythm is now definitely assigned to the vigorous and audible contractions of the auricles. This hypothesis was originally advanced by Charcelay³ (1838) and later independently by George Johnson⁴ (1876), and was confirmed by the graphic studies of the heart sounds by D. Gerhardt,⁵ and more recently by Mond and Enid Oppenheimer.⁶ These workers have shown that the extra sound is presystolic in time and simultaneous with the P (auricular) wave of the electrocardiogram. I am satisfied with the doctrine of the auricular origin of these extra sounds because I have seen

gallop rhythm disappear when auricular fibrillation supervened, and reappear when the fibrillation stopped. In fibrillary arrhythmia, it is common knowledge that the auricles cease to contract, but quiver instead. Since the extra sound occurs only when the auricles contract forcibly, it is obvious that the quivering of these thinwalled chambers is hardly enough to create audible sounds.

Gallop rhythm is more clearly discerned in hypertension where the thumping or pushing quality of the auricular sound is felt by the palpating finger and its dull, low-pitched sound perceived by the ear. Palpation is often more conclusive than auscultation. Firm pressure with the stethoscope generally obliterates it and the best way to listen for auricular sounds (c. g., in gallop rhythm or heart block) is by applying light pressure with the stethoscope. I am indebted to Prof. Arthur D. Hirschfelder of Minnesota for this practical hint.

To re-emphasize: The accessory sound in gallap rhythm is presystolic in time and due to a vigorously contracting auricle. Its significance will now be explained.

Physiology of Auricular Contraction: Under normal conditions, the auricular contractions are unessential to the diastolic filling of the ventricles. When there is an increased resistance in the ventricles or the A-V valves, the auricular contractions become significant. The commonest example of such valvular constriction is mitral stenosis where the hypertrophied left auricle helps to drive the blood through the narrowed mitral orifice thereby reducing the imperfect filling of the left ventricle. In the earlier stages of the heart failure of mitral stenosis, it is the atrophy of the left ventricle rather than the insufficiency of the right ventricle and lesser circulation which is of primary importance.

Another illustration of the importance of vigorous auricular contractions is in heart failure. Here the residual blood in the ventricles increases and the auricles contract powerfully in order to drive the blood into the partly-filled ventricles during diastole; the resulting increase in intraventricular tension causes a greater distension of the ventricles—the muscle fibers of the heart become stretched and this results in a more complete evacuation

of the ventricles during the ensuing systole (Starling's Law).

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Hence, an early indication of the ventricular failure is, forcible auricular contractions, which may under certain conditions give rise to audible sounds characteristic of gallop rhythm. The phenomenon may be concurrent with cardiac decompensation and fugacious, or it may be permanent and indicate a persistent suboptimal (insufficient) cardiac condition. Concerning the symptoms and treatment of the milder forms of visceral insufficiency, I refer to the splendid work of Januschke, details of which cannot be

presented in this paper. The time of the audible auricular contraction in the gallop rhythm of heart failure, depends on the degree of decompensation. The more severe the latter, the earlier in diastole—when it approaches With mesodiastolic phase. restoration of compensation, the auricular sound moves nearer to the first (ventricular) sound, so that it becomes presystolic and later comes so close to the first sound as to give rise to a split sound, which is finally replaced by the normal, single heart-sound.

Gallop rhythm is probably the most direct sign of heart failure and ferhaps of myocardial disease especially when this phenomenon is associated with an increase in the P-R interval or an inversion of the T waives in the first two leads of the electrocardiogram. This symptomatic duet may be regarded as a "reaction of degeneration" of the myocardium.

Gallop rhythm occurs most commonly in the heart failure of essential hypertension, chronic hypertensive nephritis and coronary thromhosis. In the last condition, it usually appears several days or more after the onset. In hypertension, especially when the diastolic pressure is concurrently elevated, gallop rhythm should be diligently sought for because its detection may yield significant prognostic and therapeutic leads. Such cases should be ausculated both after exercise and while the patient lies on the left side.

The infectious diseases in which gallop rhythm may indicate myocardial degeneration are diphtheria and pneumonia. Its presence is an ominous sign and the patient should be watched with extreme care and unnecessary movement (espectation).

cially in diphtheria) carefully avoided. Sudden death on sitting up during the convalescent period of diphtheria, may be due to unsuspected myocardial degeneration which might have revealed itself by a gallop rhythm which was overlooked. Such patients should be kept in bed at least as long as the gallop rhythm persists. Digitalis, if given at all, should be administered in small or moderate doses; large doses may do more harm than good.

In coronary thrombosis, it is an important prognostic sign, and the proximity of the accessory auricular to the first ventricular sound bears some re-- lationship to the severity of the disease: the nearer it is to the first sound, the less the involvement, and vice versa. There are, however, rapidly fatal cases without gallop rhythm. Gallop rhythm may outlast the other clinical signs of acute heart failure but as long as it exists, compensation can hardly be considered restored, and dyspnea on effort or emotion, nocturnal attacks of cardiac asthma (with or without edema of the lungs) are almost the rule; subsequent attacks of coronary closure are quite common.

Gallop rhythm generally occurs as a sign of serious myocardial disease with impending or obvious heart failure. It also occurs occasionally in: (1) compensated, aortic insufficiency, (2) severe tachycardia, (3) Graves' disease, and (4) auricular extrasystoles, without concur-

rent heart failure.

Aortic insufficiency with good compensation may be associated with gallop rhythm due to a forcibly contracting left auricle and I presume the mechanism is the same as the one advocated by Austin Flint to explain the functional presystolic mitral murmur in aortic regurgitation: the eventration of the mitral leaflets by the gush of blood into the left ventricle during diastole thus forcing the left auricle to contract against a resistance and create audible sound vibrations.

In Graves' disease, gallop rhythm is occasionally heard. It may be due to exaggerated auricular activity resulting from neurocardiac stimulation. There may be in addition a supervention of cardiac insufficiency which might exaggerate this phenomenon. In the tachycardias (including auricular flutter and other types of paroxysmal tachycardia) vigorously

contracting auricles may induce gallop rhythm. Here, too, the associated heart failure incident to the tachycardia may be a significant factor. When the normal heart rate is established, both gallop rhythm and other signs of heart failure, disappear.

A diagnostic point worthy of emphasis is that auricular extra-systoles may disclose their origin, by the addition of the audible presystolic element which accompanies the premature, but not the normal beats. Obviously a "galloping extra systole" does not indicate heart failure. In a recent case of mine the P wave of the premature contraction was mounted on the T wave of the previous beat, showing that the auricle contracted while the ventricle was still in systole. The impediment to the blood flow from the auricle caused the latter to contract forcibly and produce the accessory sound.

There is an apparent relation between constitution and gallop rhythm, in that the latter is most commonly heard in broad-chested persons, while the physiological reduplications and split sounds are more frequent in long, thin people.

Physiological Splitting and Reduplication: First Heart Sound. It is essential to review these briefly in order to distinguish them from the gallop rhythm described above. R. Geigel, Jagic, and Pillsbury have emphasized the frequency of split first sound in normal hearts. They are generally heard best in the third left interspace between the sternum and mamillary line.

The first sound consists of two elements: (1) Muscular element due to the contraction of the ventricles; (2) vascular element resulting from the impact of the columns of blood thrust against the walls of the aorta and pulmonary artery. The first (muscular) element is low-pitched and dull, the second (aortic) element is high-pitched, clear and short. The accentuation is generally on the first element.

We may dismiss the theory of "asynchronism of the ventricles" as an explanation for the splitting of the first heart sounds, as one lacking in proof. This false notion has unfortunately become anchored in current textbooks.

Under pathological conditions (e. g., essential hypertension or chronic hyper-

GALIOP RHYTHM

tensive nephritis) the interval between these two elements is lengthened and the split sound may assume the character of a reduplication the latter represents the shadowland between the physiological and pathological

A split first sound while generally physiological is otherwise if accompanied by a prolonged P-R interval or an in verted T wave on the electrocardiogram It then indicates myocardial degener-

Reduplication of the first sound textbook statements to the contrary, does not occur in mitral stenosis Reasonable confusion may exist when the presystolic murmur is very short (rudimentary), it may then be taken for the presystolic

element of gallop rhythm

Second Heart Sound A physiological splitting of the second sound at the base of the heart is heard best during inspiration and is due to the premature closure of the pulmonary valve resulting from the predominant influence of the negative intrathoracic pressure on the pulmonary artery rather than on the north asynchronism of the closure of the semilunar valves accounts for the splitting of the second sound The first element, which is caused by the closure of the pulmonary valve, is dull and low-pitched. the second element arises from the aortic valve, is clear and high-pitched pathological splitting of the second sound with accentuation of the closing sound of the pulmonary valves obviously occurs in pulmonary arterial hypertension incident to mitral valvular disease or leftsided heart failure

A familiarity with the acoustics of the second heart sound is important in ex planning the absence of an accentuated A-second sound in hypertension . Often it is not heard over the conventional aortic area but to the left, where it is mistaken for the second pulmonic sound reason for the confusion lies in the overlapping of the areas over which these respective sounds are projected aortic zone has the shape of an horizontal oval extending from the second interspace to the right of the sternum to a corres ponding point on the left side, the pulmonic zone is a vertical band a little outside of the left aortic zone in the second and third left interspaces. In the left second interspace, both aortic and pulmonary sounds intermingle In case of doubt concerning the interpretation of the second sound to the left of the sternum, the latter should be compared with that heard over the conventional aortic area

A diastolic reduplication of the second sound at the apex is often heard in mitral stenosis where it is of diagnostic value The explanation of its mechanism given by the French school, is a chek due to the unfolding of the rigid, stenotic, mitral valve segments during diastole ("Claquement d'ouverture nutrale") In some instances of mitral obstruction, there may be in addition to the reduplication of the second sound at the apex, a splitting of the second sound at the base mechanisms and the acoustics of both sounds are different. The latter is higher pitched and is separated by a shorter interval than the former. The cause of one is the high pressure in the pulmonary artery, that of the other, the unyielding mitral valve

While the physiological splitting of the second sound is best heard during inspiration, true gallop thythm is heard best at the end of expiration when the heart is denuded (not covered by the lungs)

A physiological third heart sound (Gibson, Thryeri') is occasionally heard in young thin chested people especially boys It is heard best with the subject in the horizontal position and slightly rotated to the left and is heard and felt as a soft postdiastolic shock against the listener's eardrum This is not to be confused with the middiastolic third sound which though rare, occurs in "adherent pericardium" and is due to the diastolic thrust of the apex in consequence of the antecedent systolic retraction

Diagnostic Technic for Eliciting Audible Auricular Contractions

The first rule is to ausculate early in the course of the examination while the patient is still excited. If the patient has become composed and a gallop rhythm is suspected and not clearly made out, he should be exercised moderately and the gallop rhythm may appear The cardiac apex should be felt and then ausculated in the left lateral position The finger should be placed against the cardiac apex near the stethoscope, or the thumb placed on the external carotid artery while listening to the heart. This will facilitate the timing of the extra sound. In true gallop rhythm, the accent is generally on the second or third element, not on the first (auricular) element. The stethoscope should be pressed against the chest lightly and those familiar with the wooden monaural stethoscope, used abroad, will find it quite useful for this purpose, for while the head rests on the earpiece of the stethoscope it is capable of feeling the impact of the heart beat transmitted along the stethoscope thereby permitting simultaneous palpation and auscultation.

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Treatment

The therapeutic measures that should follow the discovery of gallop rhythm are as follows: The blood volume should be reduced by moderate venipunctures (150-200 c.c.) at irregular intervals of days, weeks or months depending on the severity of the case. Venostasis or the application of four blood pressure cuffs on the four extremities, a method that I have described on previous occasions, by means of which the veins and not the arteries are compressed, will be found very useful.

Dehydration by means of the injectable. mercurial-diuretics is valuable. Digitalization in moderate doses (never massive) should be employed. The fluid should be restricted to one liter a day and salt should be reduced or replaced by one of the salt substitutes on the drug market.

If gallop rhythm is heard during an attack of coronary thrombosis, where it is such a useful diagnostic measure, it should be followed with care. Patients must not be allowed to get out of bed for some weeks after its disappearance. Its reappearance when the patient is out of bed demands his prompt return to bed.

Patients in whom gallop rhythm is heard, who complain of dyspepsia, may derive benefit from a periodic rest-in-bed for at least one day a week and such patients may get symptomatic relief from the routine use of ten grains of diuretin peppermint water dram of taken at bedtime or during the spell of "indigestion." 216 CLINTON AVENUE

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FIRST INTERNATIONAL CONFERENCE ON FEVER THERAPY

The first international meeting on fever therapy will be held in New York City, September, 1936. The use of fever induced by physical and other agencies as a therapeutic procedure has received universal attention in the past few years. The conference will aim to collect and crystallize available data in this field. Therapeutic, physiological and pathological phases of fever will be discussed.

The suggestion for this conference originated with a group of interested European physicians. Five national conferences have already been held in the United States.

It is planned to translate abstracts of all the papers into French, English, and German. In order to make the printed copies of the transactions available for the conference, it is necessary that manuscripts and abstracts be sent in not later than June 1, 1936. Those interested in participating are requested to make early application.

Further information may be had from the Secretary, Dr. William Bierman, 471 Park Avenue, New York City.

The San Francisco County Medical Society is broadcasting a program every Tuesday evening called "Science Edits the News," to give the public facts in an ethical manner about newspaper items related to health and medicine.

TREATMENT OF UNDESCENDED TESTES BY THE ANTERIOR PITUITARY-LIKE PRINCIPLE FROM THE URINE OF PREGNANCY

ALLA GOLDMAN, M.D., ABNER STIRN, M.D. and JOSIPH LAPIN, M.D., New York City

Since our original paper¹ on this subject we have studied additional cases. The procedure used was as follows.

1 Bodily measurements were taken of all important points, and compared with Englebach's standards before and after treatment

2 Prolan A and ovarian hormone tests were done on the urine of each boy before treatment in order to find what relationship these may have on the conditions found

3 Photographs were taken before and

after treatment

4 X-ray of the sella turcica, glucose tolerance, and basal metabolism tests were done where indicated to rule out

other endocrinologic defects

5 The position and size of the testes were carefully evaluated by at least three physicians on the initial examinations. Where a testicle entired the scrotum after a hot bath, or on downward mas sage over the inguinal canal, such case was not admitted to treatment.

The difficulties inherent in a proper evaluation of cases suitable for treatment become apparent in a review of the literature on the frequency of undescended testes Thus Drake' in a recent report gives a figure of one half of one per cent while other investigators run as high as five per cent. No statistical analysis in the literature differentiates the position of the testes, 1e, abdominal, high or low in the carril, or high in the scrotum Obviously such wide discrepancies must be due to differing methods of examination and evaluation of what the term "undescended" really should be applied to For the sake of rigidity of standards we have admitted to this study only those testicles definitely abdominal or in the canal, which cannot be expressed into the scrotum

The position of the testicle is the important factor in its function "Since Groffith's work in 1893, many researches have demonstrated that the degeneration of undescended testicles is due to their removal from the scrotal influences, which acts as a theimoregulator, producing the cooler environment required by the testicle for its germ-cell producing function. Abdominal testicles become functionally useless; those having a low inguinal canal position or an upper serotal one may occasionally contain some spermatozon. (Allen) The distance of the testes from the low serotal position is then a determining factor in its function.

Etiology

Counseller finds that the method by which the testis gets through the abdominal wall to the scrotum is not clearly understood but its success or failure is often attributed to the gubernaculum Supporting this theory is the fact that the gubernaculum not only atrophies following descent of the testis, but if the testis is either undescended or ectopic, the gubernaculum is either absent or deficient in its lower attachment.

Certain observers feel that the guber medium acts as a tractor and pulls the testis into the scrotum, others believe that it merely acts as a guide directing the testis into its normal position

Burdeck and Coley blist the following conditions which may be regarded as

causing arrest of the testicle

A Within the Abdomen (1) Mesorchum too long, so testicle hangs too freely, and it is prevented from engaging in the opening of the processus vaginalis (2) Adhesions between mesorchium and adjacent portions of serous membrane, the result of an intra uterine fetal peri (3) Lack of action of the internal fibers of the cremaster (4) Spermatic vessels may be too short (5)Certain forms of hermaphroditism (6) Fusion of testicles

B Within the Inguinal Canal (1) Lack of development of the inguinal canal, external ring, or one half of scrotum (2) Deficiency or absence of lower at-

tachments of the gubernaculum, or diminished activity of its muscular fibers. (3) Retraction by the action of the cremaster after the testicle has gained its normal position in the scrotum. (4) Pressure of a truss for an accompanying hernia.

None of the literature discusses the mass of the testis as a factor in non-descent, but a study of the mechanics would seem to indicate that an increase in the mass of the testicle would be an important factor in its descent.

Effects of the Anterior Pituitary-like Prolan Principle of the Testis

This increase in the mass of the testicle can be secured by the injection of anterior pituitary-like hormone (prolan) from pregnancy urine. Engle⁶ says that from the data acquired through the study of a series of animals, both rats and monkeys, the following conclusions may be drawn: (a) The testis weight of animals treated with pregnancy urine is considerably increased, and (b) the interstitial mass hypertrophies greatly. Working with seven monkeys, he⁷ found an increase in testis size, due to an increased tubule growth, and to an increase in the interstitial cell mass; and later⁸ he found the weight of the testis approximately doubled and the scrotum increasing in size and turgescence. He felt that with the external os open and the gubernaculum pulling down, an increase in the weight of the testis would produce descent.

Smith and Leonard, working on normal rats, reported similar results even from prolonged injections, though some investigators had reported subsequent involution of the interstitial cell mass, and a decrease in the size of the testis. This occurs only in hyphophysectomized animals.

Robson and Taylor¹⁰ found that injections of pregnancy urine in immature male rats showed marked effects on the development of the testes and on the whole genital system, the seminal vesicles becoming enormously enlarged, and the penis larger and longer, but there was no effect on spermatogenesis.

Aberle and Jenkins¹¹ report similar results in a group of five monkeys, the hormone causing complete descent in one animal and partial descent in four. In

these four animals, the fascia surrounding the vas deferens and spermatic vessels was too short to allow the testes to reach the lower part of the scrotum.

Plan of Treatment. Injections of the anterior pituitary-like principle of the urine of pregnancy (as prepared by Squibb & Co. under the commercial name of follutein). It contains a mixture of prolan A and B; A being the follicle-stimulating factor, and B the luteinizing factor. It is now standardized at 125 rat units to the cubic centimeter. Injections ranged from two to twenty-one a week, individual dosages from one c.c. (125 rat units) to three c.c. (375 rat units). (a) Ambulatory patients two to three injections a week. (b) Hospitalized, one to three injections a day.

No other medication was given in the

majority of cases.

Results. Eleven patients from 9 to 23 years of age, were under treatment for two to twelve months, and received a total from 1,800 to 14,000 rat units, and increase in the size of the testes and descene into the scrotum was attained in ten cases. Changes in bodily measurements to a more masculine type occured in five out of the seven considered Fröhlich types at the outset. Four cases had small external genitalia; in all four there was sufficient hypertrophy of the penis and increase in size and rugosity of the scrotum to be called normal when discharged.

These results compare favorably with those of other investigators. Thus Sexton12 was successful in producing descent of the testicles in four of six boys, and in producing growth of the external genitals in eleven out of thirteen boys with genital underdevelopment. The two failures to produce descent were in thin boys. Cohn,¹³ in four cases of nondescent, produced complete descent in three, and explains his failure in the fourth as due to mechanical obstruction. However, he reports ten injections of a total of only 1,000 rat units, a very much smaller dosage than we and others have found necessary.

Our one complete failure (Case 6) was a normal boy of twenty-three with normal sex development, but a left testicle completely abdominal. He has been under treatment only two months, with a

total dosage of only 1,800 rat units. For this reason more intensive treatment has been begun, although no result has been seen as yet

Rubmstein¹⁴ points out that since testicular descent is believed by some to occur as a passive phenomenon as the gland enlarges, and since the internal abdominating is normally closed in the human and incaque at birth, it is questionable whether descent would occur if the testes were intra abdominal prior to treatment. He treated a ten and one half-year-old Frohlich type with two abdominal testicles with drily injections for five months and secured descent of the testes, marked sex growth, and changes in bodily measurements.

We cannot as yet judge whether our fulure was due to insufficient dosage, inchinical obstruction, or to atrophy of the testes which had been abdominal after spermatogenesis occurred.

In three other cases which had one abdominal testicle (8, 10, and 11), treatment was partially successful, the testes entered the canal or the scrotum, there were marked growth of the external genitalia and changes in bodily measure ments.

Drake has shown the frequency of spontaneous descent, and the objection is often raised that descent would have spontaneously occurred in the time under treatment For this reason one case (7), eleven years old, with both testicles just pulpible high up in the canal was hospitalized and given 250 to 750 rat units three times a day The testes became markedly swollen and prinful within one week, the scrotum doubled in size child ran a temperature up to 103° F, with severe chills, and the leukocytes rose from 9 200 to 23,800. Dosage was then reduced, and the child remained in the hospital one month, receiving a total of 14,000 rat units At discharge both testes were large, the rudimentary, labialike scrotum had become large and rugose and the small penis had hypertrophied markedly

Aberle and Jenkins (10c cit) discontinued injections in one case because reaction was too severe. We have never found this necessary, as a reduction in the dosage seemed sufficient.

Comment

Age at which injections may be started is a controversial point. Cooperso found that undescended testes in boys over two and a half or three years of age showed a reduction in the number and size of the tubules and an increase in the intervening stroma For this reason Aberle and Jenkins11 treated a three year old boy successfully But Wangensteen16 in experimental work on unde seended testes in dogs showed definitely that if artificial cryptoichidism was produced before any spermatogenesis had occurred, none of the degenerative changes took place in the testis, however, if cryptorchidism was produced after spermatogenesis had begun, then de generative changes occurred in the testes Spermatogenesis is thought to occur as early as the unth year, although complete function rarely occurs before fourteen Therefore, Counseller' feels there is no urgent reason for treatment before

the muth year

Another reason why treatment was deferred was the possibility of premature sex function Engle¹⁷ feels that the dangers of precocious sex maturity in a child under mine are very real, and that the injection of large doses of a potent hormone into young children presents possibilities of real danger to the whole endocrine system. Case 8 one of twins, is interesting in this connection, as the twin treated for undescended testes has developed premature sex power, erections, and nocturnal emissions, which are lack-

ing in his normal brother

In view of this we have selected nine years as the earliest age at which we will start treatment. It seems desirable that we should not wait beyond thirteen years, when spermatogenesis brings atrophy to the undescended testis.

2 Frequency of injections seems a mat-

ter of choice

3 Size of dose No serious reaction occurred with any dose from 125 to 750 rat units, but as with Case 7, extremely large doses sometimes produced a painful swelling of the testicle. Our average dose is therefore 250 rat units

4 Possible dangers are illustrated by the precocious sex maturity in Case 8 Evansi⁸ found the testicles themselves actually decreased in weight and seemed

A PARAMETE

to be damaged by the injections of anterior pituitary-like hormone, but this was in work with rats. Collip and his coworkers,19 working with white rats, have demonstrated histologic changes in the descended testicles by injections of the anterior pituitary-like principle of the urine of pregnancy.

2. Increase in the size of the testes and descent into the scrotum was attained in

TABLE I.—THE EFFECT OF ANTERIOR PITUITUARY-LIKE HORMONE ON TESTES

-				70 111	Injections Size of testicle				Gene	I				
ıse		Position undescende			n aiter Iment			Ri	ght	L	eft	appear		_
о.	Age-	Right	Left	Right	Left	Time (months)	Total rat units			Before	After	Before	After	Discussion
F.	12	Low inguinal		Scrotal		12	9,925	1.0 x 3.2	2.0 x 3.2			Fröhlich type	Same	_
. H.	13	Low Inguinal		Scrotal		12	9,975	1.0 x 1.5	2.0 x 2.5 1.5	_	_	Fröhlich type	Same	
7. S.	11	Low inguinal	Low inguinal	Scrotal	Scrotal	8	8,000	0.5 x 1.0	2.0	0 5 x 1.0	1.5 x 2.0	Small thin hyper- thyroid	Same	_
V. E	12	Low inguinal	Low inguinal	Scrotal	Scrotal	10	7,500	0.5 x 0.5	1.5 x 2.0	0.5 x 0.5	1 5 x 2 0	Normal	Normal	
2. L	. 9	Low inguinal	Low inguinal	Serotal	Scrotal	6	9,925	0.5 x 0.5	1.5 x 2.0	0.5 x 0.5	1.5 x 2.0	Short, effemi- nate	Taller and more mascu- line	Penis and scro- tum markedly increased
. M	. 23		Abdominal		Abdomina	ıl 2	1,800	_		?	?	Normal, full sex develop- ment	Same	
[3. C	. 11	High inguinal	High inguinal	Scrotal	Scrotal	2	14,000	1.0 x 2.0	2.0 x 4.0	1.0 x 1.0	2.0 x 4.0	Fröhlich	Normal	Previously rudi- mentary, labia- like scrotum and small penis are
II Dr.:		Abdominal	High inguinal	Low inguinal	Scrotal	8	8,000	?	Small	Very small	Normal	Fröhlich	Normal	now normal. One of twins, high pitched voice— no public hair, small penis and scrotum. After treatment: Marked hypertrophy of penis and scrotum. 2 in, taller than twin.
Dr.	в. ¹⁵	Low inguinal	Low inguinal	Scrotal	Scrotal	9	7,025	Small	Norma	l Small	Normal	Fröhlich	Normal	Penis and scrotum very small. After treatment: Penis and scro- tum normal and public hair mas- culine.
Dr.	11 G.	Abdominal	High inguinal	Scrotal	Scrotal	7	••••	?	Small	Small	Normal	Small, Fröhlich type		No public hair and large abdomen. Right-sided inguinal hernia, right testicle descended into scrotum with hernia, but hernitotomy made it adherent in the inguinal canal.
I Dr.	G. 12	High inguinal	Abdominal	•••••	******	3	14,100	Very small	Normal	?	Normal	Fröhlich type		At operation tes- ticles found of normal size

ovaries and hypophyses of white rats given continuous injections of hypophyseal extracts. The authors have found no specific references in literature describing definite damage to the human testis as a result of prolan.

Conclusions

1. Eleven boys were treated for un-

ten cases.

3. The one failure was in a boy of

twenty-three with a completely abdominal

left testicle. 4. Indications for treatment have been

discussed.

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TO STUDY 100 DEMENTED BRAINS

The brains of more than one hundred men, women, and children who have died of dementia praecox will be materials for research through which two Albany psychiatrists will seek its cause and cure.

The research is being executed by Dr. Lloyd H. Ziegler, professor of neurology and psychiatry at the Albany Medical Col-lege, with the assistance of the graduate student resident in neurology and psychiatry,

Dr. Robert J. Stein.
The study has been made possible through a \$2,000 grant for one year's research, from the Research in Dementia Praecox Foundation established by the Supreme Council of the 33rd Degree, Northern Masonic Jurisdiction. A fund of \$40,000, available for the first year's study, has been divided among 10 cities throughout the United States. The work is under direction of the National Committee for Mental Hygiene.

The foundation was established after the Masonic order sought advice on the most important medical problem of the day with which they might assist.

"We will be pioneers," Dr. Ziegler said. "We will not deal with patients but with the brains of persons who have died from the disease. Our research will be conducted as a laboratory study in the college. It will take several years. We shall report periodically.

"Dementia praecox is a disease characterized by a lack of capacity of persons socially and occupationally to adapt them-selves to their environment," Dr. Ziegler pointed out. "When it is realized that more than fifty per cent of the beds in all America's hospitals are occupied by sufferers from this single malady, it can be understood how important economically it is to understand its causes,

"While medicine and surgery have made vast strides during the years, so far as anything of value is known regarding dementia praecox, we are still in the dark ages.'

Pupils at many schools now receive sunray treatment. They declare that it is much pleasanter to take than the old-fashioned method of tanning .- The Humorist, London.

PLASTIC RECONSTRUCTION OF NASAL DEFORMITIES

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Because the nose is the only unprotected organ in the face, its deformities are far more frequent than any other facial disfigurement. The rigid structure and fragile framework of the nose are particularly important factors in its deformation.

The shape and size of this organ are definite racial characteristics. However, hereditary syphilis and dysfunction of the endocrine system frequently result in nasal deformities.

As an organ the nose has the important functions of (1) Promoting the sense of smell; (2) facilitating normal breathing; (3) permitting proper drainage of the execretions of the nasal sinuses; and (4) contributing to establish normal facial balance. The present article has to do with the last of these; i.e., disturbed facial balance.

Normally, the nose occupies the middle third of the face and traverses a straight line through its center. Any deviation of the nose, therefore, comes within the scope of the treatment under discussion. Any individual whose nasal deformation prevents the performance of his daily duties and deters association with his fellow men with a feeling of physical normalcy, should be encouraged to avail himself of plastic surgery.

It is unfortunate that the majority of plastic operations are performed in private hospitals, since such hospitals are usually beyond the reach of those financially handicapped. Such persons will unfortunately put up with their afflictions and follow the pursuits open to them. And though a number of these patients will seek relief from, say, impaired breathing or similar symptoms in clinics especially suited for such purposes, most of them find no recourse to treatment which might correct the hideous facial disfigurement that keeps closed many lines of work to them and makes their social lives a burden.

Less than 10 per cent of all nasal corrections are undertaken for "beauty purposes"; more than 90 per cent of the clinical patients submit to such operations

because they are unable to secure suitable employment. Patients who come to the plastic surgeon with a deformed nose frequently present one or several of the following reasons for operation:

- (1) Neuroticism, such as self-consciousness, mental depression, inferiority complex (which in most cases is a result of the handicap), and other disturbances that might be considered of a neurotic origin or be a contributing factor to a psychoneurosis. Fully 80 per cent of all of these patients suffer from neurotic tendencies.
- (2) About 80 per cent of all patients suffer from impaired breathing. In most instances plastic operations will improve this condition. However, these operations do not in any way replace—nor are they intended to do so—more extensive submucous resection.
- (3) About 40 per cent of all patients seek the plastic surgeon because of social handicaps or because they are unable to find employment in their chosen field due to their deformity.
- (4) Strange as it may seem there are less than 10 per cent who seek the plastic surgeon for beautifying purposes.

It is well to remember that the plastic surgeon is concerned with the supporting framework and the mechanical arrangement of the anatomical structures of the nose rather than with its pathological conditions which should be taken care of by the rhinolarynologist. This article for that reason deals primarily with the proper realignment of the malformed and malposed nasal parts and the mental and physical benefits derived therefrom.

Nasal deformities may be hereditary or the result of trauma. Congenital malformations may be confined to the superficial structures, while traumatic deformities usually involve the deeper tissues of the nose. In the latter cases the reconstructive process naturally is more complicated.

As in most instances of surgery the patient's general condition should be known to the surgeon. Heart conditions, blood pressure, the coagulation time of the blood, and any active pathological

conditions in the nasopharity or the neighboring structures, which may interfere with the operation or its result, should be known. Another important factor is the healing ability of the patient. It is necessary that the extent of any previous inval operations be well established, and of course, that syphilis be eliminated by means of laboratory tests.

The 5 types of nasal deformaties are (1) Humped or hooked nose; (2) long nose, (3) crooked nose, (4) saddleback or flat nose, and (5) broad or fat nose. The occurrence of each depends on

habits and race

Because of the delicacy of plastic operations—on the nose as well as on any other part of the body—it is imperative that the operator learn how to model a nose from clay before attempting rhinoplastics, for it would be as unwise to attempt such an operation without clay modeling, as it would to attempt surgery without knowledge of anatomy

Preoperative Procedure

Preparation is the same regardless of the type of nasal deformity A combination of codeine and aspirin, administered orally one hour before operation, is excellent as a preoperative sedative. This does not produce the postoperative nausea and vomiting that so frequently follows the administration of morphine salts However, operators who are not accustomed to using local anesthesia will find morphine sulphate more effective In the author's experience, the barbiturates have proven unsatisfactory. There seems to be a great tendency to hemorrhage 4 to 12 hours after operation in cases where the drugs have been employed preoperatively If general anesthesia is used the customary combination of morphine and atropine by hypodermic injection is preferable

Humped or Hooked Nose

This is by far the most frequent type of deformity encountered Estimates vary between 50 and 75 per cent The incidence is highest in commercial centers where the Latin, Arabic (which is usually hereditary but may be traumatic in origin), and Hebraic races are numerous. The malformation is characteristic of these races, and the frequency de-

pends directly upon racial distribution It is overdevelopment of the supporting structures that distorts the nose both auteriorly and inferiorly

There is one type of patient upon whom the attention of the profession should be focused with serious intent, for it is usually his unsfortune to have one or two unnecessity operations. The patient is usually thin and underweight, nervous, and possesses a very long, thin, humped nose The nostrils are narrow and the cartilages of the alae are very thin and flexible. The chief complaint is difficulty in breathing Examination reveals congestion of mucous membranes, moderate degree of deviation of septum, and swelling of turbinites. The history establishes the fact that the patient is a mouth breather, suffers from frequent sore throats even though the tonsils have been removed, and expectorates large quantities of mucus on arising in the morning The first unsuccessful opera tion is usually a submucous resection, the second may be an attack upon the enlarged turbinates. Neither operation affords the patient any reliet. In these cases, which are not as infrequent as one would think, the external examination of the nose is most important can be seen to collapse on inspiration and adhere to the septum if the nasal secre tion is inclined to be sticky. The patency of the nasal orifices depends upon the support of the alac by the literal cartilages. If the cartilages are too thin and flexible to serve as a supporting frame work, the above described condition is the result, and its relief can be secured only through plastic reconstruction. This is mentioned below

Except in rare instances the operation is performed under local anesthesia and with care even the pain resulting from the first prick of the needle can be eliminated. The patient's face is cleansed with alcohol, and iodine is applied over the nose and upper hip.

Anesthesia A 10 per cent solution of cocaine is used to anesthetize the nasal mucosa, a 1 1,000 solution of adrenalm is applied to supplement the cocainization and to minimize the bleeding. Then the entire intranasal field of operation is indimized. The iodine is immediately neutralized by a liberal application of alco.



Fig. 1. Humped Nose before and after operation. Nose straightened and shortened. Post-operative picture taken two weeks after operation still showing slight swelling in the lip.

hol. A 2 per cent solution of novocain containing adrenalin is used for infiltration, which begins at the base of the columna nasi and passes outward to the tip and upward along the top of the septum and bilaterally over the bony structure of the nose.

Technic. The scalpel is passed up through the nostril and an incision is made between the upper and lower lateral cartilages and extended laterally over both the nasal processes and downward along the top of the cartilaginous septum. The entire incision is made in-



Fig. 2. Long Nose before and after operation.

side the nose, the skin is not cut at any point. The tissue over the bridge of the nose is loosened, and before the nasal bone is removed, the periosteum is pushed back and saved. The excess of bone is removed by saving, and the nasal processes are leveled by paring with a rasp. The septum is trimmed and leveled with a cartilage kinde and shortened, usually by the removal of a V-shaped section from the tip or center, according to the structure and position of the

cartilage Two or three silk sutures are

passed through the septum and adjoin-

ing tissues for the purpose of closing the gaping space

A broadness of the bony structure of the nose may be corrected by detaching the nasomaxillary processes by means of a saw or chisel, and pushing them medially If the tip of the nose is too broad, sections may be removed from the superior edge of the lower lateral cartilages to facilitate the narrowing process A soft metal splint is placed on the nose for 48 hours. The splint minimizes the postoperative edema, prevents discoloration of the eyes and molds the nose The splint should be tightened every 12 hours because it separates to some extent as the tissues swell However, this is an advantage in that it is fool-proof, $i \in I$, it is rigid enough to minimize the edema but flexible enough to prevent sloughing of the skin

The pressure upon the rasal bridge gives this splint a decided advantage over

all other similar appliances

In the cases with collapsed alae (previously mentioned) the operative procedure is the same except no tissue is trimined from the borders of the lateral cartilages. Instead, during the shortening process, the lower is allowed to slip up over the inferior border of the upper lateral cartilage, thereby re-enforcing the supports of the alae. The average period of hospitalization is 48 hours.

After the first 48 hours the dressing consists of adhesive strips. It is used chiefly to prevent public inspection and criticism until the swelling disappears. For the first few days patients are very solicitous concerning the length of the nose, since, because of the swelling, it appears entirely too short. As the swelling recedes, the tip of the nose drops to

normal and the patient's anxiety is relieved. Peroxide of hydrogen may be used for cleaning and keeping the nostirls open. The sutures are removed on the eighth to eleventh day, according to the healing ability of the patient.

During the operative process the fissue is loosened over the bridge of the nose to let the skin contract and this return to its original firminess over its diminished contents without puckering. The periosteum over, the nasal bone is saved and pulled downward over the leveled processes, because the bone regenerates beneath it to form a straight bridge almost as strong and thick as the previous one

Results The shape of the nose is well migh perfect and the breathing is always improved, and, if the patient has a neurotic tendency, it is relieved in proportion to the plastic improvement

Long Nose

The reconstructive process in this case is the same as that for hooked nose, except that there is no hump to be removed

Crooked Nose

The crooked nose is of traumatic origin and its severity depends upon the fragility of the nasal structures and the force with which the injury was received. It usually presents a complicated surgical problem owing to the abnormal positions in which the small fragments of the supporting framework heal following violent displacement of the parts. The absorption of some parts and the cicitricial contractions of others are ever present complications In this type of cases the nose is deformed laterally The defect is greatest when both nasomaxillary processes are fractured with subsequent healing before attempting to correct the displacement Then the deformity may be considered bilateral 1e, both processes or sides of the nasal framework are displaced in the same direction. The absorption and cicatrization are least when the osseous framework of the nose is most sturdy In adults, regardless of whether one or both nasomaxillary processes are in volved in the defect, both processes are detached before forcing them medially In children under 14, it is not wise to attempt any corrective measures which





Crooked Nose before and after operation. Intranasal structure reconstructed and straightened.

might interfere with future nasal ventilation. In the young, the processes, due to their flexibility, may be forced laterally or medially to their normal positions by means of proper instrumentation. This avoids detachment of the processes and

promotes more normal development of the nasal chambers.

The operation for this type of nose differs but slightly from the routine described for the hooked nose. After removing the hump on a crooked nose the



in reconstructive process. Broad tip made narrow.



Fig. 4. Saddle-back Nose before and after operation. Cartilaginous graft from rib utilized

nasomivillary processes are detached at their bases by using either a saw or a chisel Then the cartilagmous septum is incised against any concavities to break the springlike effect of the cartilage. The meisions pierce the mucous membrane and pericondrium of the concave side as well as cartilage proper The mucous membrane and pericondrium of the convexed side are left intact. The septim is then straightened and shortened, as previously described. The nose is molded and the metal splint put in place The splint is removed after 4 or 5 days

In detaching the masomaxillary processes, some surgeons prefer a clusel, others a saw The writer has always considered the nasal bones too fragile for the use of a chisel, moreover, the saw is under much better control and the patient does not suffer from the shock of the blows, which may prove very unpleasant in the case of nervous patients

Saddle-back Nose

This type of deformity varies from other types in that it may result from one or more causes Although not confined to any race or profession, it is more noticeable among races having well elevated nasal bridges. The following types and causes have been noted. (1) Congenital, with hereditary syphilis or endocrine disturbances, (2) traumatic, with injuries or faulty submucous resections, (3) pathological, with tertiary stage of acquired syphilis or tropical and oriental infections such as gangosa, frambesia, espundia oriental sore

In the author's experience a third of these cases result from congenital syphihs Among the cases due to endocrine conditions were 2 of chrondrodystrophy, correction of the nasal deformity in these patients was not attempted, since it was of such minor importance. A case of pituitary or possibly multiglandular involvement, having only 4 upper and 2 lower small, pointed canine teeth, was operated upon and referred for dental prosthesis. The best results in endocrine cases involving dental maldevelopment and in syphilitic nasal deformities accompanied by perforation of the hard palate cannot be had without the co operation of a dentist possessing great patience and unlimited ingenuity. In perforations of the hard palate, proper mechanical protheses assist in restoring nasal and oral functions as well as in normalizing speech which is usually affected in these cases

Injuries resulting from games, sports, and industry are only slightly ahead of faulty submucous resections as a cause of flat nose Congenital and traumatic causes are encountered in deformities among patients between 12 and 35 years of age, while pathological conditions produce deformities most often in patients past 35 years of age However, the writer has seen one case, thought to be oriental sore, in a Turkish girl of 24 Pathological deformities of this type are the most severe of all and as an added difficulty present considerable scar tissue Plastic reconstruction should not be considered without first determining the ab sence of all pathological organisms as well as all active pathological processes In the saddle-back nose the nasal crest is pushed posteriorly and the nasal tip is slightly elevated. The elevation varies in accordance with the severity of the deformity of the nasal bridge

Technic First, a plaster-of-paris cast is made of the nose and dental wax is molded into the concavity, until the nose has attained the shape desired after operation. Then, the wax model is taken to the operating room A piece of costal cartilize with its pericondrium is removed under local anesthesia, routine method, and shaped like the wax model but somewhat smaller, because the model fits outside the skin while the trans planted piece goes beneath. The tendency of the cartilage to turn up at the ends can be overcome by cutting the pericondrum criss cross

By routine method, an incision is made intranasally along the lateral cartilage and the skin loosened well out over the nasal processes. The transplanted piece, which, when properly shaped, is introduced through the meision, fits the nose as snugly as a saddle. The incisions are made on both sides and of course they must be the same length to assure symmetry and uniform contraction. No splint is used in this type of case three small black silk sutures are employed to close the incisions and a very light dressing is applied. The sutures are

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KEITH KAHN

removed on the fourth to sixth day. Tf the patient suffers from syphilis or some endocrine disturbance, a silkworm drain should be inserted to drain off the serum which always collects in such cases. The site from which the graft is taken should receive routine surgical care. The period of hospitalization is 4 to 6 days.

Broad or Fat Nose

The broad or fat nose seems to be congenital. It occurs most frequently in, and characterizes the dark races. In the white races this condition indicates to some extent, a slightly unbalanced endocrine system. The osseous and cartilaginous framework of the nose is lacking in structural and anatomical development in all dimensions. The alae cartilages are thin, but the soft tissues covering them both intranasally and extranasally are very thick in the colored races. However,

The executive officers of fifty leading health and welfare agencies and groups of agencies representing close to one thousand separate health and welfare institutions and organizations in the five boroughs have sent a letter of congratulation and gratification to Mayor LaGuardia of New York City, hailing his instructions to the Commissioner of Hospitals, Dr. S. S. Goldwater, to proceed with plans for a modern hospital for chronic diseases on Welfare Island as the first step toward the solution of one of the most press-

Dr. M. E. Binet, vice-president of the medical society of Vichy, France, will visit the United States early this year to extend an invitation to several American physicians to attend the International Congress of Hepatic Deficiency which will be held in Vichy in 1937, presided over by Professor Maurice Loeper, Professor of Clinical medicine at the Faculty of Paris.

ing public health problems of today-the

care of the chronically ill.

The State Department of Health maintains a large supply of "silent" health motion picture films in both the 16 and 35 mm. sizes which are lent without charge for group showings within the State. A complete list of the films available, together with a synopsis of each and statement concerning conditions under which they may be borrowed, will be furnished on request by the Supervisor of Visual Public Health In-struction, State Department of Health, Albany, New York.

in the yellow races the soft tissues are normal in development.

Technic. This type of nose is revamped in the same manner as the saddle-back nose. However, external incisions may be necessary to narrow the nostrils. For this reason it is impossible to standardize thoroughly the operation and each case must be handled individually.

In the author's series of cases it has been comparatively easy to establish a definite neurosis and to recognize plastic surgery as a means of giving peace of mind and happiness to such patients. One case of hay fever and several cases of chronic headache supposedly of sinus origin but with negative x-rays of sinuses-were relieved. No explanation is offered of these results, though it is conceivable improvement of nasal ventilation and drainage effected the relief.

769 SEVENTH AVE.

The incomplete indexing of current medical literature has reached a critical point, said Charles Frankenberger, Librarian of the Kings County Medical Society, in his presidential address at the convention of the Medical Library Association in Rochester. He remarked:

"As the knowledge of what other investigators have done is a primary step in all experimental work it seems logical that the existence and maintenance of a complete index to medical literature is of vital importance to all research and that a part of the funds of foundations and institutions conducting experiments and studies might be contributed toward sustaining and making possible the more complete indexing of medical literature."

The fourteen living founders of the Rochester Academy of Medicine were honored at a dinner celebrating the Academy's 35th anniversary on Dec. 7. Over two hundred were present. The principal speaker was Dr. John A. Hartwell, Director of the New York Academy of Medicine.

Eleven of the original founders still living in Rochester are Drs. Edward B. Angell, William M. Brown, Robert Carson, George W. Goler, S. Case Jones, Marion Craig Potter, E. Wood Ruggles, Henry T. Williams, Frederick W. Zimmer and Charles D. Young. The others are Dr. Horace J. Mann of Brockport, Dr. Robert Cook of Canandaigua and Dr. Charles T. LaMoure of the Mansville State Training School, Conn.

THE SURGICAL TREATMENT OF CORNS

WALTER I. GALLAND, M.D., New York City

The attitude of the surgeon towards the common corn or clavus has long been one of utter indifference, giving the laity the very definite impression that this condition is far beneath the dignity of a respectable surgical practice. In consequence of this attitude, the treatment of this ailment has been relegated to the hands of a quasi-medical profession.

In 1933 I published a short article on an operative treatment for corns, and since this publication a continued experience in the development of this procedure has convinced me that much useless suffering, which is usually only temporarily alleviated by the palliative treatment of the chiropodists, could be effectively prevented by the use of a surgical procedure designed to eliminate the basic pathological conditions which favor the persistence of the clavus.

In the usual text, clavus is considered merely as a circumscribed hyperplasia of the corneous layers of the skin with extensions going down as far as the corium. It is a structure which is usually pared away or which is softened by the keratolytic applications frequently employed. This cornification, however, is only the superficial manifestation of the clavus, and its elimination does not touch the basic pathological condition which will inevit-

ably reproduce the corn.

The clavus is commonly found over an interphalangeal articulation. It is a manifestation initially produced by friction with a shoe, but coincident with the irritation of the skin, there occurs an irritation of the underlying tendonous and articular structures. In response to this deeper trauma, the tissues react in the expected manner. Between the skin and the tendon, a bursal structure appears and with continued friction this may grow to appreciable size, and may at times become infected. This bursa is situated directly over and lying upon the extensor tendon. The articular margins of the phalanges, stimulated by the same chronic irritative influences, behave as joints elsewhere react to traumatic influences. Hypertrophic

lippings arise from the juxta-articular margins of the phalanges, and with this growth there appears a new factor in the etiological train, for the bony excrescences have now formed, constitute counterpoints of pressure between which and the overlying footwear, both the skin and the bursal structure are constantly traumatized. For the permanent relief of clavus, therefore, we must consider three structures-the cornified epithelium, the underlying bursa, and the juxta-articular eminences of the phalanges. (Fig. 2.)

The soft corn which appears between the toes is very similar to the clavus described above, except that the cornified skin is continuously macerated by the moisture which gathers between the toes. The bursal structure is less apt to be present, but the bony excrescence can always be found, and constitutes the principle source of friction. A peculiar deviation from the pathology noted above is sometimes met with in the soft corn. It will frequently be noted that the osseous prominence exists upon the phalanx of the adjacent toe and not under the corn itself.

Operative Procedure

The preoperative preparation of the skin is important, for the feet are apt to be grossly contaminated by organisms which have become deeply embedded in the cornified epithelial layers. Due precaution should be taken prior to operation to overcome any active fungus infection. It is advisable to have the feet thoroughly scrubbed with soan and water on several successive days prior to operation.

The operation is performed under local anesthesia. In order to avoid infiltrating the corn area itself, and thus obliterating many of the anatomical details, I have employed a block anesthesia using two per cent pro-caine with adrenalin. Seven cubic centimeters of this solution has usually proven adequate to secure a complete blocking of a single toe.

After the usual skin preparation the cornified layers of the clavus are removed with a

sharp curette. It will be found that this portion of the clavus peels off quite readily

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without entering the vascular layers of the skin. When this has been entirely removed, the skin is again iodized and a semielliptical flap is outlined surrounding the corn.

In my earlier operations, the skin flap was

made as would have been normally expected, with the base of the flap situated proximally. However, in several cases thus operated, although the corn did not reappear, the skin continued to exhibit a tendency towards

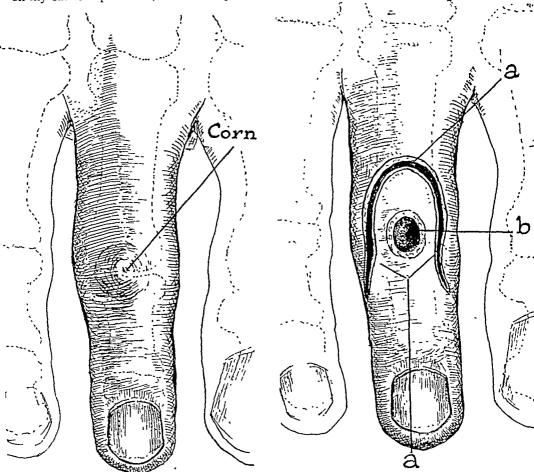


Fig. 1. Diagrammatic illustration showing the usual location of the common corn over the interphalangeal articulation of the toe.

Fig. 3. The usual skin incision with the base directed distally. b—Cornified area has been curetted prior to making the incision for the flap.

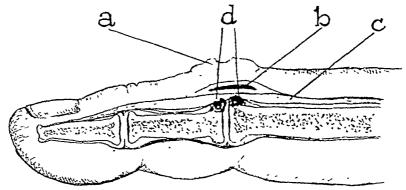


Fig. 2. Sagittal section through the corn showing the component factors producing the phenomenon. a—Cornified epithelium. b—Bursal sac. c—Extensor tendon. d—Juxta-articular bony prominences which constitute the points of counter-friction.

hyperkeratosis, and as a result a rather indurated integument covered the area. In the later cases in order to obviate this difficulty, I have outlined the skin flap with the base placed distally on the supposition that such a flap would tend to have its circulation considerably diminished, and that the skin of such a flap with its reduced circulation would show a diminished tendency towards hyperkeratosis. The results have justified this procedure, and there has been no serious difficulty in securing viable skin flaps with his incision. The base of the flap should flare outward, so that the connecting isthmus will not be too narrow to permit adequate vascularization. (Fig. 3.)

When the skin flap is dissected back, the bursa will come to view quite promptly. At

Fig. 4. The skin flap has been turned back. The bursa (b) is seen overlying the extensor tendon—a. Occasionally this bursa adheres to the skin flap at point indicated—c.

times this structure is difficult to define, and is represented by a small mass of synovial tissue which overlies the extensor tendon. At other times the bursa is quite large and may contain calcified material or inflammatory exudate. The bursal structure is renoved leaving the clean surface of the extensor tendon. (Fig. 4 and 5.) An incision is now made alongside and parallel with the fibers of the extensor tendon. This incision extends down to the articulation and should be long enough to traverse the entire articular area. (Fig. 6.) With a small periosteum elevator the tendon and periosteum are pushed to one side exposing the articular

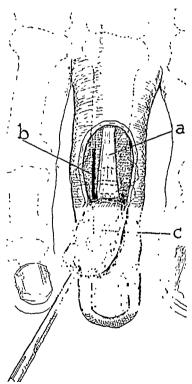
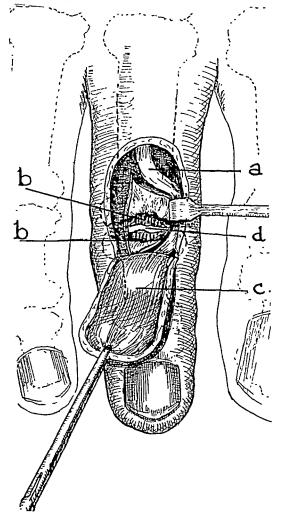


Fig. 5. The bursa has been removed leaving the clean surface of the extensor tendon. The capsule of the articulation has been incised along the line—b.

margins of the phalanges. (Fig. 6.) Usually the bony excrescences are immediately apparent, but occasionally they will be found quite far laterally or medially in the wound area, and if not evident on inspection can be readily located by digital examination of the joint margins. The bony prominences are then removed with a very fine chisel. Due care must be taken to remove enough bone. The juxta-articular margins should be well beveled, and any prominence should be thoroughly smoothed down so that a depression exists in place of a prominence. This eliminates the possibility of a persistent osseous point of counter-friction.

The wound is closed in layers using 000 chromic gut in the joint capsule and silk



The extensor tendon—a has been displaced exposing the articular margins. juxta-articular prominences—b are thus brought into view. d—the joint space. The prominences should be carefully removed so that no excrescences remain along the articular margins.

sutures in the skin. No splinting of the toe is necessary. The patient is usually able to walk with a cut-out shoe after the first day and may expect to wear such a shoe for a period of three to four weeks before the area is sufficiently insensitive to permit the use of an ordinary shoe. For women, the now commonly worn sandal shoe lends itself very well to this purpose.

The operative procedure outlined above is not always applicable to the treatment of soft corns. On those corns which are deeply situated between the webs of the toes it is not possible to carry out this operation satisfactorily. In such cases, after curetting the clavus, I completely excise the cornified area in the web, remove any subjacent bony prominence and effect a closure of the wound by undermining the skin edges and drawing in the redundant tissue in the web between the toes. An easy closure can thus be made without undue tension.

Results

This operation has now been used for the past four years without any complicating incident of moment. In one case, that of a male patient, there was a slight necrosis of a portion of the skin flap. This particular corn would probably have been best operated with a flap with the base situated proximally, inasmuch as the skin over the area was obviously extremely indurated and paper thin. In future cases of this nature I should suggest that a flap with the base proximally should be used. No infections have been encountered and without exception these patients have been able to walk around with a fair degree of comfort within four days after operation. Several interns and nurses operated on for corns have continued their duties without interruption following this procedure.

Conclusions

- 1. The ordinary clavus is amenable to operative treatment.
- 2. The operation must eliminate the factors which produce the recurrence of the clavus—the hyperkeratosis, the bursa, and the juxta-articular prominences.
- 3. The operation is simple and devoid of any great risk of complications.

1085 PARK AVE.

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STATE JOURNAL

OF MEDICINE

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EDITORIALS

The New Year

We approach the new year with confidence and courage Our past is not unworthy Our tradition is still our pride During the depression which seems to be lifting, medicine has done its share. No one, anywhere who needed and asked for medical care was denied it. That part of the profession which itself suffered want and deprivation, met its burden with calm and confidence, took medical work where it was to be had, and is emerging stronger and better.

The everpresent struggle to keep the tradition of the profession infact, maintain confidence between patient and doctor, is not lost to us Attacks upon our Jong established code of ethics have not intpressed upon us the necessity of changing that which from ancient times was devised for the patients' welfare. We are still embattled, but with our lines "firmly held," endeavoring to maintain the individualism of private practice, and to give all the benefits of private practice to the less fortunately placed, and the under privileged groups in the population. We have devised changes in the medical as pects of the Workingman's Compensation Law that seem to hold out benefits to both the injured workmen and the physicians, to the general welfare of the community

As a people, and as a profession we still are free!

Safety Brakes

President Roosevelt is showing that he understands the value of brakes as well as accelerator in driving the car of state. His decision to limit the program of the next Congress to essential business will relieve the anxiety of many who feel that the government is going too fast and too far over untried roads. Nothing will be lost—and much may be gained—by a period of critical observation in which desirable reforms may be consolidated and mischievous innovations dropped.

Undoubtedly the President's decision means that no action will be taken on compulsory health insurance at the forthcoming session—a respite for which the country as a whole no less than the medical profession has reason to be grateful Many of the experiments essayed in the past two years have shown such a wide divergence between theory and practice that the nation is disposed to proceed cautiously with new reforms, particularly in a field like medicine, which had made notable advances and cultivated a lofty tradition without governmental control

The profession does not doubt the sin certify of Mr Roosevelt's desire to place our social and economic system on a siner and sounder basis. Many of its members are in full agreement with the

need for far reaching reforms. As a body accustomed to controlled scientific experimentation, however, it cannot accede to the large scale application of unproven theories or to the progression from one innovation to another without an interval to observe and analyze the consequences of each.

A number of Mr. Roosevelt's policies, for example, were actuated by the desire to bring about a more equitable distribution of wealth; but his most enthusiastic supporters will not deny that recovery so far has taken an opposite direction. In the past year there has been an appreciable rise in the incomes of the rich but the living standards of the lower and middle classes have dropped. The theoretical benefits of compulsory health insurance have failed similarly to materialize in Europe, where introduction of this system has nowhere been followed by the promised decrease in morbidity and mortality or increase in disease prevention. This failure of actuality to conform to theory is not attributable to incapacity on the part of those directing the experiments as much as to the inherent difficulty of incorporating socialistic practices in a capitalistic state.

Mr. Roosevelt apparently knows how to blend realism with idealism and is not afraid to call a halt when some of the theorists surrounding him get out of hand. It is to be hoped that he will not permit anything as essential to the public welfare as medical service to be tampered with until bureaucratic control of private enterprise has given a better account of itself than it has so far.

Blue-Printing Social Problems

At the anniversary meeting of the New York Academy of Medicine, Mr. Walter M. Lippman made some very pertinent remarks anent the tendency to make blueprints of a social problem and proceed like an engineer or an architect to apply remedies.

His thesis was "that statesmen had better think of themselves as physicians who assist society than as engineers who plan and fabricate it."

Medicine, as has often been shown, in the form that it is used by the people, is modified by the form of the society it serves. In the approach to problems concerning medical care, and its delivery to all groups of our people, it follows therefore, that no one scheme or plan can possibly be made applicable to the whole country.

To those entrusted with the problems of finding solution to the pressing problems of medical care, Lippman's words hold an important message. He decries the ruthlessness with which, engineerlike, those who would plan society, cut human nature to the shape they desire and nail together in a design of their own, the living spirit of men.

Income and Health

Organized medicine has frequently pointed out the relationship between income and health, insisting that no system of medical care can compensate for insufficient food, inadequate clothing, and scanty housing. Of late this point of view has been taken up by social welfare workers, no less an authority in this field than Mr. Edgar Sydenstricker agreeing on the importance of economic security as a preventive of disease.

Mr. Sydenstricker does not carry his idea to its logical conclusion, however, when he puts social insurance in the same class as increased earnings as a means of providing economic security. "To what avail is it to send a nurse to instruct a mother," he asks, "when that mother cannot pay for a physician?" To what avail is it to send a physician, we add, if weekly payments for compulsory health insurance lower the living standards of the small wage earner and reduce already meagre allotments for nutrition and housing?

As long as millions of people continue to live in disease breeding slums and subsist on a third grade diet, it is useless and illogical to talk of preventing illness by compulsory health insurance. The boasted American standard of living has been shittered beyond recognition in the past six years—and in its place the country is offered an expensive bureaucratic pallintive for the consequences of poverty. When will labor realize that its direct and indirect payments for compulsory health insurance would lower living standard still further and condemn the small wage earner to a state of perpetual proletarianism?

Postgraduate Instruction by Detail-

Within recent years there has arisen a new type of postgraduate instruction in therapeutics which literally has been forced upon the medical profession. We allude to the high pressure sales talk of the detail men attached to some of the pharmaceutical houses and to concerns manufacturing apphances for physical therapy Equipped with but a smattering knowledge of the few medical topics in which they are interested, these men presume to educate the physician as to the inadequacy of his present means of treatment when compared to the drug or apphance which they are selling When unsuccessful in convincing a doctor by their pseudoscientific discussion, they in variably point out to him the increase in monetary income which is bound to follow his purchase of this or that machine Advocating that he use intravenous medication because it necessitates many more visits on the part of the patient, they try to enlist his use of their product by this bait They attempt to inveigle a doctor into the purchase of an expensive appa ratus, whose use is not understood thoroughly as yet, by citing garbled reports of scientific publications or by telling him that his nearest competitor has seen fit to install one All this is objectionable to the largest number of medical practitioners

All forms of therapy which are advocated have been and are being subjected to rigid experimentation by the profession before an opinion is expressed as to their value in the treatment of disease. The physician rightly looks to his medical conferers for authentic opinions on the newer forms of medication and he finds them expressed in medical publications and at the stated meetings of scientific societies. The fine relationship which has hitherto existed between the ethical pharmaceutical and other concerns and the medical profession should not be jeopardized by the desire of sales organizations to foist untried or at the best, poorly tried remedies upon the doctors.

Salvarsan, insulin, avertin, to mention a few medicaments, and drithering my clinies, quartz lamps and radiothering appliances are sold purely as a result of the knowledge gleaned by the profession after long experimentation. Their limits of application are known and their worth proven, and these articles sell themselves. The less well proven, and those whose use implies more visits and more money only for the doctor hardly ment consideration at all.

Effect of Placental Extract on Dick Test

The problem of conferring immunity against the contagious diseases is still the active concern of many investigators. While in themselves, searlet fever, measles, whooping cough, et cetera, are self limiting diseases which run a mild course, their potentiality to involve vital organs with eventual lasting impairment to them, often resulting in loss of life, represents an important factor in the mortality rate of a community.

Most of the experimental work in this field has been done with vaccine, anti-toxin and antivirus, although lately human blood has been found to possess immu nologic properties when injected intra-muscularly. Attention also has been directed to the fact that extracts made from the placenta contains immune bodies. McKhann and his associates have studied

¹ McKhann C F Green A A Eckles L E and Dayles J A V Immunological Applications of Placental Extracts Effectiveness by Oral Administration Ann Internal Med, 9 388 Oct 1935

the value of these extracts in the prevention of scarlet fever. Their investigation embraced not only the efficacy of placental extract when injected hypodermically but also when administered by mouth. In twenty-two children in whom the Dick test was positive a reversal of the reaction was obtained following the ingestion of a cold aqueous solution of the extract. The duration of this negative stage varied. In some instances the Dick test remained negative for as long a period as eighteen days. The authors note that the period of negativity was prolonged when the placental extract was given in iced alkaline carbonated water on an empty stomach. They were unable in adults to convert a Dick positive into a negative reaction.

The field of immunology is broadening constantly. From the study of the immune properties embraced in human tissue it may subsequently be found that the lack or loss of certain active substances in the body may account for the susceptibility of an individual to some of the contagious diseases. McKhann's report shows that in children, at least, the clinical evidences of susceptibility to scarletina temporarily disappeared when the immune bodies of placental extract were added to the body.

In All Fairness

In its last issue this JOURNAL commented unfavorably on the administrative requirements of the Federal Resettlement Administration, of which Rexford G. Tugwell is Director. Criticism was based on a report in the New York Times in which the Resettlement Administration was said to have engaged over twelve thousand administrative employees to five thousand and seventy-two relief workers.

Since then, Mr. Tugwell has pointed out certain inaccuracies in the *Times* report. While the Resettlement Administration has employed only 5,072 relief workers to date, it is in addition caring for 354,000 farm families, its program being "primarily one of rehabilitation rather than of direct work relief. * * * Instead of two administrative jobs for

each relief job, there are twenty-eight cases receiving work relief or rehabilitation under the Resettlement Administration for every person on the administrative pay roll."

While one administrative worker to twenty-eight cases still seems like a high ratio, there is a tremendous difference between this and previously published figures and the Relief Administration is entitled to a frank admission of error. The New York State Journal of Medicine regrets the mistake and is pleased to publish the corrections supplied by Mr. Tugwell.

CURRENT COMMENT

IN THE OCTOBER 1935 issue of Law and Contemporary Problems Dr. Frederic E. Elliott and Dr. Ramsay Spillman, writing on "Medical Testimony in Personal Injury Cases," says "It is our belief that in a very large percentage of the negligence claim cases, in which we have had personal experience, a simple arbitration hearing could have been arranged promptly, and a satisfactory conclusion of the case established to the economy of the tax-paying public (who support the court), the economy of time of the physicians and other witnesses (who are called upon to appear), and to the ultimate betterment of both parties to the litigation, and to their attorneys. If either the plan which we regard as ideal or the proposals which we offer as compromise substitutes therefor were adopted, the number of cases handled by informal arbitration would, undoubtedly, be vastly increased."

Speaking of Public Housing, Raymond Moley, in *To-Day* of December 14, 1935, among other things says, "No one in America ever builds a new one-family house on a site vacated by another, unless it has burned down. This constantly draws people away from the built-up central areas.

Now the retreat of the pleasant residential sections farther and farther from the blighted centers of cities, which will be accelerated by a private residential boom, is a socially desirable movement. But we ought not to forget the predicament of the cities left behind. Unless we continue our efforts to find a way to maintain or rebuild the health of the central areas we will have on our hands bankrupt cities which must support public services only partially paid for."

IN THE St. Louis County Medical Society

35

Bulletin, we find the following from the pen of Dr. Eben J. Carey. "I am afraid that there are still physicians who look upon medical economics as an intricate subject which few can understand without pondering it as one would an income tax report, thereby adding a few more gray hairs. This perhaps accounts for the indifference towards this subject that still exists, although the situation is rapidly improving.

There are, of course, a large number of physicians who are interested in this subject. Undoubtedly it was due to their efforts that the American Medical Association created its Bureau of Medical Economics which has been in existence some two or three years. The Association's experience confirms the helief expressed that although there was a demand for active participation of the Association in medical economics, once its Bureau was established there was not the general interest and enthusiasm which was expected."

Dr. Harrison Betts, in an address made when he retired from the office of President of the Medical Society of the County of Westchester, as published in the Society's Bulletin, summed up the problems confronting organized medicine into five major problems. To stress their significance, we republish Dr. Betts' summation. "First, the relationship between the private physician and the hospital clinic and the question as to who shall ultimately control the clinic:—

the hospital, the social worker, or the

physician.

Second, the relationship between the private physician and the department of public health, and the problem of restoring the practice of preventive medicine to the physician.

Third, the financial relationship between the private physician and his private patients, and the problem of assisting people of moderate means to meet their obligations for medical service without hardship.

Fourth, the relationship between the private physician and the welfare departments

and welfare clients, and

Fifth, the relationship between the private physician on the one hand and the employers, employees and insurance companies on the other,—in compensation practice."

IN THE New York Sun of December 7, 1935, George Van Slyke calls attention to an astounding speech recently made by Aubrey W. Williams, who is director of the new youth movement, known as the National Youth Administration. This speech has aroused the educational world to a realization of the alarming trend of that venture, and stirred politicians to a comprehension its potentialities as a vote-getting medium. With this political point of view we are unconcerned. We must ponder over the idea promulgated by Van Slyke, however, when he implies that the philosophies of Stalin, Hitler, and Mussolini in composite form are taught to our youth.

Correspondence

[The Journal reserves the right to print correspondence to its staff in whole or in part unless marked "retruste." All communications must carry the uniter's full name and address, which unit be omitted on publication of desired. Anonymous letters will be descended.

December 3, 1935

New York State Journal of Medicine, 33 West 42 Street, New York City.

Dear Sirs:

In the article of the December 1 issue of this Journal by S. N. Kritzalis on "Gonocomenia with Complete Recovery" a very incomplete review of the available literature on the value of blood transfusions for this type of illness was made.

In the May 1930 issue of the American Journal of Medical Science, p. 559, Perry

reported a case of "Gonorrheal Endocarditis with Recovery" in which he emphasized the value of frequent blood transfusions.

Very truly yours,

Samuel S. Adler, M.D. 110 Riverside Drive New York, N. Y.

Perry, Matthew White—Gonorrheal Endocarditis with Recovery, Amer. J. Med. Sciences, May, 1930, p. 559 [correct page number 599].

DR. HENRY B. SMITH, of Hempstead was made president-elect of the Nassau County Medical Society at the November meeting.

Dr. Louis H. Bauer, of Hempstead, was elected vice-president; Dr. Herman Wahlig, of Sea Cliff, secretary-treasurer, and J.

Louis Neff, executive secretary. They will serve with Dr. Phipps, president for 1936.

Dr. Alfred Shipley, deputy Hospital Commissioner in New York, gave an address on workmen's compensation medical practice.

Medical Economics

Subtle and persuasive forces are at work influencing the public mind in favor of state medicine, and its substitutes, socialized medicine and compulsory sickness insurance.

High-school debating teams throughout the country this year have chosen as their subject: Resolved, That the several states should enact Legislation providing for a System of Complete Medical Service Available to All Citizens at Public Expense. This subject was selected by the Committee on Debate Materials and Interstate Cooperation of the National Educational Association.

This means that throughout the country, in secondary schools, and in associated circles, this question is continual discussion. It is estimated that 8,000 high schools are to participate, with audiences totalling a million persons. Debaters are supplied with plenty material, affirmative and negative, from well-organized sources.

Professor Bower Aly, of the University of Missouri, is the editor of the Debate Handbook on the subject "Socialized Medicine" and the material he presents in a two-volume work on the subject is not confined to the major proposition, but also contains arguments pro and con on compulsory sickness insurance. The handbook is published by Lucas Brothers. Columbia, Missouri, at the price of \$1.50 for two volumes.

Mr. J. Weston Walch, Debaters' Information Bureau, 45A Free Street, Portland, Maine, edits the "Complete Handbook on State Medicine" a comprehensive collection of notes and references on both sides of the question. It sells for \$2.50 and cumulative supplements are issued monthly.

Both these publications are carefully prepared as to both sides, and are valuable as a source of reference to those wishing to maintain the contentions of organized medicine on the subject.

The two-volume handbook published by Lucas Brothers, besides briefs, hints and helps to debaters, contains several complete articles on the subject, both affirmative and negative. Michael Davis of the Julius Rosenwald Fund, Edgar Sydenstricker of the Milbank Memorial Fund, Joseph R. Slavit of the Medical League for Socialized Security are presented bearing on the affirmative, and on the negative side there are special contributions by Dr. R. G. Leland and Dr. Morris Fishbein of the American Medical Association, Dr. Wingate Johnson, and Dr. Frederic E. Sondern, president, Medical Society of the State of New York.

By permission of Professor Aly, editor of the handbook, Dr. Sondern's contribution to this symposium, "Medicine and Men," is published here for the information of the physicians of New York State.

MEDICINE AND MEN*

A Discussion of Compulsory Sickness Insurance

Frederic E. Sondern, M.D.;

In times of great economic stress and hardship, when we are called upon by the inexorable rotation of events to pay for past excesses, it seems that the penalty is too cruel to bear, that it is inequitably exacted, that some easy way to escape it can be found. It is in such times that we look with

the unfortunate and especially the sick who are unable to pay the cost of illness. Moved by commendable sympathy and zeal, certain sociologists and social workers are proposing such cure-alls as compulsory sickness insurance, advocated as a way to bring adequate medical care to all the people. It is my purpose here to discuss this scheme, which has incurred the almost universal condemnation of the medical profession, the

sympathy and commiseration on the lot of

^{*} Prepared for the Debate Handbook. All rights reserved. (Reproduced by permission.) † Editor's Note. Dr. Frederic E. Sondern is President of the Medical Society of the State of New York.

very men who would be called upon to make it effective, and who judge it in the light of their experience with medicine and men.

I believe I speak for the medical profession when I say that we are moved deeply by the spectacle of people in need, and I may add, what later I shall refer to again, that we have continuously throughout the depression and even before, offered our services unstitutingly in the alleviation of the miseries of those who are unable to pay for medical care, as well as those able to pay only part of its cost. This is a traditional, historic obligation. The medical profession of America has met this responsibility within the last five or six years in a creditable manner, to the point of severe individual financial sacrifice, thus accepting its share of the catastrophe which has descended upon all of us.

So well has this emergency been met under the prevailing system of practice that it can be said that there is little lack of medical care if the person needing it, or his family, will seek it. This may not be true in isolated sections of the country, or in sporadic instances, but in general it is true among the majority of our population. Physicians do not eject patients from their offices because they do not have cash in their hands, nor do clinics close their doors to them. If the patient cannot pay the doctor in full, he pays less; if he has nothing, he is treated without cost or is referred to institutions which care for indigent patients, This is always the case if the patient seeks medical care; if he does not can it he forced on him to good purpose?

But, it is claimed there is a lack of medical care generally in this country. It is made to look as if the medical profession, some way or other, is withholding from people the services it is their business to provide. This claim is based largely on the results of the periodic medical examination of school children and the medical examination of men drafted for war service, and on certain surveys of small population groups. These reveal without doubt large numbers of cases of poor health, defects which can he remedied, actual disease and medical neglect. Does this justify a belief that a system of compulsory sickness insurance would remedy the situation? It has not done so in any country where this system of medical practice is in operation.

Proponents of compulsory sickness insurance point to the fact that surveys have shown that almost half of the American people get no medical care whatever. But these surveys do not disclose what type of medical care these persons needed, nor whether they had sought it and why they failed to obtain it. So this fact proves nothing, except perhaps this: that almost half of the population are without medical care of a preventive rather than a curative type, doubtless because they are unaware of the value of preventive medicine, or are indifferent, or ignorant. We have no facts whatever from such studies as these showing that any percentage of the population whatever, desirous of medical care, and seeking it, are not able to get what they need and want.

Therefore, the problem is not to bring to their door something which as yet they do not feel they need, offered as a part of a compulsory system of medical practice, but the problem is to educate these people to know that they should have periodic health examinations, that they should consult a physician early when symptoms of disease appear, that the old adage is still true: "prevention is better than cure." Many of the advocates of sickness insurance are recruited from the ranks of health educational workers in connection with official or voluntary agencies. It is recommended that they concentrate on these health education programs, which are as yet unfinished, redoubling their efforts to create the desire for good health, and disseminating the knowledge of how medical aid can improve it, using those gradual processes of education which have been attended by sound and encouraging improvement in the past. This is wiser than to attempt, by an allinclusive scheme, to find a panacea for ills too various for a simple cure.

Before passing to the consideration of the proposed insurance law itself, let me say that if the experience of the medical profession justified the opinion that the system would result in adequate medical care for all of the people, they would be the loudest advocates of the measure. But medical men with few exceptions are opposed to the compulsory sickness insurance scheme. They believe it will not in fact, bring adequate medical care to those whom it serves, but an inferior quality of care to that which is at the disposal of the wage earning group today. Medical men believe the plan will result in a deterioration of the physician's standards of excellence, that it will foist upon society a bureaucratic system politically controlled, which will feed and fatten at the expense of the workman and interfere, to the great damage of the patient, with the relationship between him and his physician. These considerations strike at the very vitals of the profession. We are moved deeply by consequences which we envision in this country if compulsory sickness insurance becomes effective, and we find when we

travel in Europe where this type of practice has been established, evils which could not be avoided, and perhaps would be aggravated, here.

Let us examine, in general, the provisions of the law as it has been offered for legislative enactment in this country, under the popular name of the "Epstein" law. We shall discuss the results which may be expected to ensue from the establishment of the system in the United States, presenting some of the substantiating evidence from abroad, and analyzing the superior advantages of individualized medical practice over collectivist efforts.

The Epstein law was proposed for enactment in a number of state legislatures during the sessions 1934-35, and was passed by none.

The principal features of the law are

these:

Provision of medical care to all workers within a prescribed income class by "panel" doctors who are paid from an insurance fund.

The insurance fund is financed by contributions of a percentage of wages paid by the workman, another such percentage contribution by the employer, and a third by the state.

Administration of the law is by boards, councils and committees on which doctors, dentists and labor interests are represented, but the balance of authority reposes in non-professional persons.

The administrative set-up for the individual state described in the bill should open the eyes of those who believe that compulsory health insurance would lower the costs of medical care. At the top is the Health Insurance Board, consisting of a ten-thousand-dollar-a-year Director and three other members, each of whom would receive an annual salary of seventy-five hundred dollars plus traveling costs and incidental outlays. A State General Advisory council of twelve and a State Medical Advisory Council of nine would also be set up, each headed by a full-time finance and a full-time medical supervisor. Districts would be subdivided into local areas, each with its own full-time finance and medical managers. Aiding the local offices would be local councils, the members thereof receiving per diem fees in addition to traveling expenses. These councils, in turn, would be assisted by an unlimited number of local advisory committees, also entitled to draw incidental costs. For this involved bureaucracy (and only a meager skeleton has been sketched), the worker would pay in periodic deductions from his pay, in lowered wages and augmented living costs and in increased tax-

An independent investigation of the law was made by the Committee on Legislation of the New York County Lawyers' Association, which recommended disapproval of it in the following report:

"This bill seeks to establish a comprehensive state system of health insurance. Premiums are obtained by assessing every employer 3% of his payroll and the employee 1%. The benefits are of three kinds:

- "1. Cash for those disabled in any manner whatsoever.
 - "2. Maternity benefits.
 - "3. Medical benefits.

"The administration is placed in the hands of three members appointed by the governor and two members of the Health Department. State advisory councils, district offices, local offices, local councils and local advisory committees are created, and the procedure for hearings and appeals are provided. The amount of \$100,000 is to be appropriated by the state to initiate the system, but the state is to bear no further expenses.

"The bill incorporates the British compulsory health insurance system. Its purpose is to provide adequate infirmity and disability protection to indigent employees. The estimated per capita medical cost in this country is somewhat over \$30.00, and it is believed that by this method the needy would be assured of sufficient medical attention and infirmity protection.

"We believe the bill is open to serious constitutional objections. Contributions are assessed against employers who by themselves or in the course of their business have no causal relation to the conditions upon which benefits are based. To require every employer to contribute towards the expenses of an expectant mother who happened to be an employee,—or to require every employer to contribute to the maintenance of some employee who happened to be disabled through an accident entirely disassociated with his employment, would be violative of the fundamental concepts of the State and Federal Constitutions.

"Aside from the Constitutional aspects the bill is further objectionable. The principle of medical treatment "in gross lots" has never proved effective. Various systems allied to that of this bill have been in force for years in several European countries. The mortality tables there have revealed no improved medical conditions. The many annual administrative and other changes inaugurated from time to time in those countries reveal that the system is in a

perpetual state of flux and is not beyond the highly experimental stage. To change radically our lifetime method of medical antitention through personal choice and to eliminate the family physician" for an experimental system would be highly

unsatisfactory and unwise

"The bill will inevitably lower the stand ing of the medical profession. The majority of the doctors will be compelled to submit themselves to the bureaucratic control of a State Department in order to earn a livelihood. As past experience has demonstrated certain doctors would be favored in the amount of employment they would obtain and other doctors would be forced to different channels to support themselves. The zeal, the inspiration and the intellectual acumen of the medical profession so vital for scientific researches and experiments will be dampened considerably by the regimented control of doctors in the hands of a piternalistic State Department

Other objections need no elaboration. The severe assessment against employers would be economically demoralizing. The type of treatment and prerequisites necessary before such treatments are granted are not conducive to expeditious and effective medical attention. The bill further fails to place the control in the hands of the State Insurance Department where some degree of actuarial soundness of the system and efficient regulations therefor would be

assured

"However effective and however meritorious a system of coluntary health insurnce may be a state wide compulsory system would be the worst form of govern

mental paternalism"

The medical profession approaches the consideration of such plans as these with a background of knowledge and experience in view of which we ask respectful con sideration of our opinions. We are under a certain handican in the premises if we are to be required to submit our brief for the consideration of the general public, who have had no actual experience in giving medical care Some of the most serious of our objections are based on intimate knowl edge of our profession, they grow out of the unchangeable characteristics of human beings in the relationship of physician and patient It is not easy to make these objections fully clear to laymen without such knowledge and experience They are not so forceful when stated in print as they are when lived in life Our friends who believe that compulsory insurance will bring ade quate care to the people possess, on their side of the case, soothing gentle phrases of persuasion which simplify a matter which is really quite complex. As a stated problem on a piece of paper it may seem perfect. when it becomes an encountered problem m actual practice, the doctor who is to administer it, revolts. We look behind and beyond arguments such as this most half the people of the country get no medical care whatever, that masmuch as the average physician's income has been drastically reduced-therefore, "as is easy to sec"-all we have to do is to bring medical care to these persons who are without it by compelling them to insure themselves, and they will be well and happy, and the doctor's economic problem will be solved This may sound to'a layman as a self evident fact, and it is, the way it is put It perfectly fits our hopes and aspirations Now the physician is an idealist in his own way, just as the social worker is, but he is just a little more of a realist because his profession insistently, day after day, calls upon him to examine conditions objectively in terms of how things are going to work Not how they might work, please, if perfect conditions are presupposed, not how they o ight to work, with human beings making the desirable response but how they will work, actually, realistically, with human beings behaving as they do, and as they may he expected to do for some time to come

Let us observe what happens in European countries which have adopted this system I should like first to address myself to conditions in England, which have been

a matter of first hand observation

In England it is difficult for the panel physician to get all the facts from the patient The patient knows that the record made of his history and illness is inspected by the regional medical officer as well as by the insurance commissioner of the approved society. He is therefore guarded in his disclosures concerning himself, con trury, possibly, to his best interests. There are rigid restrictions as to the cost of drugs and appliances which hamper the doctor and affect the patient's comfort. Officials pry into details of the relationship which tends to lessen the patient's respect for the doctor Supervision of the panel doctor is exercised by divisional and regional medical officers These executives may be asked by the panel doctor to see patients for aid in diagnosis, or they may be asked to render the same service by the approved societies over the head of the panel doctor. In 1932, 626 853 patients were thus examined For the purpose of diagnosis, 42 were examined at the request of the panel doctor, while 1774 were at the request of the societies It is part of the English system that panel doctors shall certify a patient's incapacity

to work, in order for him to get benefits from the fund. It is astonishing to find that for purposes of certification, not diagnosis, requests for examination by superiors to the panel doctor were 3,348 at the request of the doctor, and at the request of the societies over the heads of the panel doctors, 621,689.

What is the conclusion to be drawn from this? Obviously that the non-professional element in the medical situation demands supervision of the panel doctor, only slightly for purposes of diagnosis, but extensively for the purpose of getting benefits for inability to work. It is not difficult to reconstruct the typical scene which in the natural course of things is enacted in many of these instances. The approved societies are interested in keeping down the costs of medical care; preventing losses from the fund, or possibly in getting favors or preferences for friends. Their viewpoint, as they inject themselves into the situation, is not medical. They exert pressure on the panel doctor to send a man back to work who has long been idle, or to get a man certified as still incapacitated whom the doctor might possibly consider well enough to work. So, under this system, the "boss" doctor is summoned. He sees the patient, and no matter what this superior may decide, the panel doctor has in a sense lost the confidence of the patient. Perhaps, in some cases, a better diagnosis may be the result, and in others, the decision as to whether the man can work or not, may be more just by reason of this supervision. But there are only a few appeals from the panel doctor's decision that the patient need not work; most of them are to keep him from having to go back to his job. And the glaring fact in the above figures which points an accusing finger at the whole system of compulsory insurance, is that these appeals for regional or divisional doctors to supervise the work of the panel doctor were so few for the purpose of diagnosis, so many for the purpose of affecting sick benefits. There can be no other conclusion drawn from the fact that there were a total of 1816 appeals for diagnosis, and 625,037 for certification of incapacity, than that the compulsory insurance scheme breeds a relationship in which the prevailing emphasis is not the skillful treatment of disease.

It should be explained here that the Epstein law, in its present form, does not provide for sickness insurance benefits. Neither did many of the compulsory sickness insurance plans in Europe, when they were first proposed. It is but a step, and a short one, from collectivist practice of medi-

cine to collectivist indemnity for sickness, which could be expected to follow closely, and the two would soon be identified in operating technique.

Interest aroused by the foregoing figures relative to supervision of panel doctors, induced me to turn to the 15th Annual Report of the British Ministry of Health for 1933-1934. This is a book of some 400 pages. The subject of National Health Insurance forms but a minor part of the report and even so it quotes many conditions and figures of interest to us, particularly in view of the present day agitation for this type of medical care, the more so as they are at considerable variance with those often quoted by the advocates of compulsory sickness insurance in this country.

There were 15,150,000 persons insured under the system and there were 15,500 physicians who did this type of practice. Thus, if each physician had an equal number of patients on his panel, his patients would number 970, and with a remuneration of 9 shillings per patient per year the income would be £437, or 2,185 present day dollars, but as this amount was subject to a 10 per cent emergency deduction, it is reduced to \$1,967. Even this amount was not net, being subject to additional details to be mentioned later, to say nothing of income and other taxes. It must not be forgotten that all panel doctors did not have the same number of patients by any means, thus the majority had an income of less than \$1,967, and the minority received larger sums. This is scarcely compatible with the quoted average of £500 to £600, or \$2500 to \$3000 so often mentioned in sickness insurance statements made in the United States. Let us assume that 20 per cent of the doctors do have an income of £600 or \$3000, what would be left for the remaining 80 per cent? Exactly an average of \$1700.

Let me analyze if you will allow, other figures quoted in the report, which are instructive to us.

The cost of medical care is detailed as follows: The total medical benefit cost was £8,420,000 or \$42,100,000. Of this sum the insurance doctors received £6,077,000 or \$30,385,000 divided as I have stated. The remaining £2,343,000 or \$11,715,000 was allowed as follows: £1,863,080 or \$9,315,400 to the insurance chemists for drugs and appliances, an average of 62 cents per patient per year. Even so there is a strong paragraph in the report on the investigation of excessive prescribing and while the accusations were numerous the convictions were few, but amounts as high as \$100 were deducted from several doctors' incomes as fines.

For medicines supplied by doctors personally on account of mileage to outlying districts, £196,000 or \$980,000 was allowedaveraging about \$128 per panel doctor.

The sum of £63,900 was paid on account of insured persons exercising their option to claim treatment through approved institutions, and £7,250 on account of insured persons who were required or allowed to make their own arrangements for medical care. In other words, a total of \$355,750

was allowed for the purposes stated. Finally £9,000 or \$45,000 was set aside for post-graduate study courses. Of this amount only £2,830, or \$14,150 was used in 1933 for this purpose in grants to 102 doctors. This equals \$139 each. Can you visualize what sort of post-graduate course can be had with board and lodging for this sum? Let us assume for the sake of argument that the whole amount of £9,000 or \$45,000 had been used. This would mean a bit over \$3 per year per panel doctor, and each one could thus be entitled to the large sum of \$15 if each would seek instruction once in 5 years. These figures speak for themselves, and I quote them on account of the rosy description of this feature by the proponents of compulsory sickness insurance in this country.

I hoped as I read the report that the figures quoted would be followed by equally detailed ones concerning administrative costs. The quotations in this regard are rather involved however as they include other "benefits" so that it is impossible to figure the net cost of the sickness insurance from them. The inclusive figures as follows are of interest.

Receipts for 1933 Contributions (Employe,

Employer) nterest and Other Receipts

Parliamentary Votes, Grants

Total Receipts	£31,946,000	\$159,730,000
Extenses Medical Services (Prev. Detailed) Sickness Benefit Disablement Benefit	£8,633,000 9,562,000 5,095,000	\$43,165,000 47,810,000 25,475,000
Maternity Benefit Other Benefits, incl. Sana- toria	1,296,000 2,204,000	6,480,000
Cost of Administration	£26,790,000	\$133,950,000
Approved Societies, Ins. Committees £3.923,000 \$19,615,000 Central Departments		
	4,764,000	23,820,000
Total Expenses	£31,554,000	\$157,770,000

£22,020,000 4,870,000 5,056,000

\$110,100,000

24,350,000

It seems unfortunate for our purpose that administrative costs are not as detailed as those for medical services, but in any event, large sums of money are concerned. What would be the result of such a

system in our country, with all the opportunities it offers to "administrators?"

After all, the matter that concerns us most is the quality of the medical services rendered under such auspices. Much has been said and written in this respect, and I can but repeat that in my experience in England, the insured patient has little regard for his panel doctor and in the event of a serious condition, in his own words he secures a "real doctor" if it takes the last shilling he has.

From 50 per cent to 60 per cent of the patients at the free clinics of London hospitals are insured persons who could have consulted their panel doctors without cost. It is a common experience in these clinics that no actual diagnosis has previously been made by the panel doctor, not because of lack of ability on his part, but on account of the short time he is able to devote to the

insurance portion of his practice.

The following is no uncommon experience in the panel doctor's office in England. Long before the office hour a line of patients may begin to form at the door. It is opened on the stroke of the office hour. Perhaps they go in one by one, or in small groups. Shortly they begin to come out of another door, This is mass medicine. It will not, it cannot, result in an improvement in preventive medicine, which is one of the chief arguments of its proponents. Yet such a claim is made in the report for 1932 of the Chief Medical Officer, who states that the 21 years' experience with the system justifies the original prediction that it would be an important factor in preventive medicine. But the London Times of September 27, 1934, quotes from the last available official figures, and states that among the insured population only, excluding loss due to sickness for which benefits are not payable, there was time lost to industry through sickness in 1933 a total of 29 million weeks' work, or 12 months' work for 558,000 persons. This is the equivalent of 121/2 days per workman per year as compared with 9 days before the compulsory insurance went into effect. Thus there is more sickness instead of less, which should perhaps lead us to call this type of practice sickness "assurance" instead of "insurance." In Germany the loss to industry through sickness has trebled in the 50 years of sickness insurance while in the United States this average loss of time per workman per year is about 61/2 days which is no increase over the figures of 25 years ago.

In support of the statement that sickness insurance does not improve the distribution of preventive medical care, I wish to quote from the Journal of the American Medical

Association for April 13, 1935.

"Diphtheria morbidity and mortality rates seem to offer a fairly sound test of the quality of medical service received by a community. The conquest of diphtheria is now in process. The methods of achieving victory are known. The date of complete triumph depends on the way in which these methods are applied to the entire population. Diphtheria death rates vary directly with the extent to which these known and tested methods of prevention and treatment are made available to the population. This situation furnishes conditions, almost laboratory in type, from which to determine the social value of a medical service.

"The arguments for compulsory sickness insurance may be summed up in the claim that it removes the economic obstacles to the giving of medical service and thereby secures a wider and more effective distribution of that service. Because of the interest in the progress of this conquest of diphtheria, statistics have been gathered through-

out most modern nations.

"The League of Nations has assembled the reported diphtheria cases from 1923 to 1933 for a number of countries.

"Variations in the number of cases between countries or in time within any country bear no relation whatever to the existence of insurance, unless it is a negative relation. The number of cases has increased in Germany and Austria, where the insurance system extends to the family, and also in England and Wales, where families are not included. The number of cases has declined most rapidly in Canada and the United States, where there is no sickness insurance.

"Promptness of treatment with immediate application of recognized remedies determines the mortality. Again it is noted that the rate of decline in mortality is more rapid in the English and Scottish towns, where children are not included in the insurance system, than in Germany, where they are included. But the most striking fact is that in neither of these countries has the decline been as rapid as in the United States, with no insurance. These figures for the United States, however, do not tell the whole story. This country and Canada, unencumbered by insurance, are the only ones in which there seems to be a possibility of complete victory. In 1933 the following eleven cities of considerable size had no diphtheria Duluth, deaths: Elizabeth, Hartford, Rochester, Salt Lake City, Seattle, South Bend, Spokane, Springfield, Syracuse, Yonkers. Some of the very largest cities in the United States had death rates much less than even the low average Some of these and their death rates per hundred thousand in 1933 were as follows: Philadelphia, 0.7; New York, 1.2; Baltimore, 0.7; Chicago, 0.2; Milwaukee, 0.8; Omaha, 0.9; St. Paul, 1.1; Minneapolis, 1.4; Oakland, 0.7; San Francisco, 1.2.

"Judging by these facts, the conclusion seems inevitable that the very classes for which insurance is proposed are now receiving under a system of private medical practice, in the United States and Canada, medical care far superior to that which is supplied when the same classes are put un-

der an insurance system.

"That this conclusion is justified is also the opinion of the observers in countries now having insurance. Edwin H. T. Nash, public health official of England in discussing 'The Present Position of Diphtheria Immunization' in the Journal of State Medicine, September, 1934, pages 522 to 526, says:

says:

"'At long last this country is really waking up to the importance and safety of

immunization against diphtheria.

"'America has been some ten years ahead of us in this matter, due to a certain extent to the American flair for wholesale publicity together with a more polyglot population in its big towns that is more susceptible to flamboyant methods of propaganda than our more sober-minded and less emotional

people. . . .

"'As a contrast compare London, with I per cent of its school population immunized, with New York State, where the numbers immunized exceed 700,000. We

numbers immunized exceed 700,000. We have no figures in this country that can compare with those on the other side of the Atlantic. None of us who are immunizing on a larger scale here can approach the figures in some of the American towns where diphtheria is being steadily eliminated. Take Hamilton, Ontario.

"'In 1922 there were 32 deaths from diphtheria, when immunizing was begun.

"'In 1925 the deaths had dropped to 14; in 1929 to 1; in 1930 there were 2, and in

1931 there were none at all. . . .

"Just as I finish writing this paper, the Medical Officer of the 12th May reports that "The diphtheria ward of the Alexandra Hospital at Montreal has been closed because there are not enough cases to warrant it being kept open." It was in 1928 that immunization against diphtheria was started in Montreal. The death rate that year was 28 per 100,000. In 1929 it fell to 15, in 1930 to 10, in 1931 to 6, and in 1933 to 2. Last year 52,063 Montreal children were immunized."

It is not easy to understand how altruistic laymen can see in compulsory sickness

insurance the glorious vision of every man, woman and child getting adequate medical care. Nobody knows better than the physician what a very large order this is. Certainly it is not to be achieved by a system of compulsory insurance which has the result, everywhere that it has been tried, of over-taxing the physician, so that he cannot take the time to do his work well.

The healing art is a difficult one, even when practiced by men of years of experience, with unlimited time at their disposal to pay attention to those cases presenting difficulties. It cannot be hurried and be effectual. Each case is an individual problem, For example: a middle-aged man consults his physician. He doesn't feel very well. The doctor asks him whether he has difficulty in climbing stairs. Now this patient may be in the very early stages of heart impairment, yet he is likely to resist questioning by his doctor which might disclose a disability. His pride intervenes. He is "Just as good as he used to be." He denies he has any difficulty climbing stairs, not realizing that by withholding from his doctor important information he may be shortening his life. But it is the doctor's obligation to find out. He has ways to help him, such as testing blood pressure, and the electrocardiograph. These serve as aids in appraising the condition of the heart and vascular system. The doctor knows very well that there may be a slight impairment at middle age which, if discovered in time, will respond to treatment and a more carefully regulated life. Under sickness insurance, he is not likely to have the time to devote to this man to get from him those casual admissions which every doctor knows are reluctantly drawn from many patients' lips, but do fall, ultimately, if he is persistent, tactful, and gains the complete confidence and good will of the patient. The fact is, and laymen need to be told this again and again, that the patient's conscious or unconscious resistance to the doctor is frequently an impediment to giving him medical care. Time is required to overcome the patient's own unintentionally obstructive conduct. "What is spoken of as a clinical picture," says Dr. Francis W. Peabody, Professor of Medicine, at Harvard Medical School, "is not just a photograph of a man sick in bed; it is an impressionistic painting of the patient surrounded by his home, his work, his relations, his joys, sorrows, hopes and fears."

In no country where compulsory sickness insurance exists, is a physician able to give enough time to each patient to render the best service of which he is capable. There is plenty of evidence to support this state-

ment, which may be said to be self evident from the fact that panel doctors everywhere are called upon to treat 30 to 60 cases per day. I have talked with many persons from European countries whose statements substantiate my personal observation in England. I wish to call as witnesses a few persons who are selected because of some recent connection with the public discussion of the subject.

Gustav Hartz of Berlin will speak for Germany. He wrote an article entitled "Will America Copy Germany's Mistakes?" which appeared in the New York State Journal of Medicine for March, 1935. I wish to quote a few comments which Mr. Hartz makes on compulsory sickness insurance in Germany, which has been in opera-

tion in that country for 50 years.

"The insured workman becomes a second class patient. The mass demand compels a limitation in the use of medicines. Doctors must not prescribe what they consider good for the patient, they are only allowed to give remedies entered in a book of medical regulations for insurance purposes.

"Medical science has become a cheap article and doctors have given up conscientious treatment. The genuine patient is neglected, is not given the necessary care. The greater the mass consultation, the lower are the doctor's fees. They are, therefore, com-

pelled to resort to mass practice.

"All this is at the workman's expense, for the part of the premiums supposed to be paid by the employer is in reality borne by the workman either as a consumer or wage earner. As the employer's premium share is immediately connected with the wage, it is shifted over on the wage. In Germany, no one any longer doubts the fact that the employer's share of the premium is taken from the workman's wages. What the employer pays as his contribution, he cannot pay the workman in the form of wages.

"A network of deception has been spread. In millions of cases wrong was turned into right and the gates opened wide to fraud. When wages are being decreased, when work is scarce and work hours shortened, when there are fewer shifts, many holidays, sick insurance comes in handy. One objects to the work he is given, another does not feel like working. Matters soon make an extensive controlling system necessary. This ends in badgering all persons.

"Patients are visited in their homes by controlling officials who have to convince themselves that the patient is really ill and not doing any work. The sick insurance engages so-called confidential doctors who have to submit the patient to a final examination to see whether he is too ill to work

The results of such examinations are to a great extent startling. Here is one instance from among thousands: 2008 patients were ordered to appear for a final examination. Eight hundred sixteen of them at once declared their complete recovery; 289 were found to be well by the confidential doctor. So nearly half of them were not ill at all.

"The confidential doctor is, so to say, the medical policeman, who not only controls the patients but also his fellow doctors who

are treating them.

"The genuine patient is justly indignant to find that the existence of his illness is doubted, and that he who has always paid his premiums regularly and has a right to demand conscientious attendance is considered a cheat.

"This system, together with the rest of the bureaucratic apparatus, has wedged itself between doctor and patient, completely destroying the patient's confidence in his physician, which greatly retards all recovery."

Shortly after the publication of the Hartz article, a corroborating letter was received from a German physician at present in this

The writer was Dr. Paul G. Frank, a resident of Kew Gardens, New York. Said Dr. Frank:

"For almost thirty years I have worked as a German panel doctor under the conditions of compulsory sickness insurance, and for many years I was a member of the physicians' committee.

"During this period I witnessed a deterioration of the medical profession. It was gradual. It came about by the removal of the sanctions of preferment by skill and the substitution of preferment by convenience. What I mean is that an insurance scheme soon becomes a business—it must do so to succeed, while the practice of medicine must be a profession to succeed at its best, and the two will not mix. In Germany the physician who was most adaptable to the advancement of the plans of the insurance officials, and who most pleased the patient for reasons perhaps quite other than skill. obtained the most rapid preferment. It is true there were a few opportunities left which made it possible to adhere to higher standards—I for instance had such an opportunity being a specialist—but many men who might have gone far were ruined by the stultifying panel practice.

"In the late nineties at the university we did not much esteem the panel idea. In those early years of compulsory insurance the lay public knew these doctors to be second-rate. Some years later when I left the university clinic I ceased to laugh at the panel doctor,

for I became one myself. My fee averaged 50 cents each for medical cases of three months' duration! Figure out for yourself how many of these I had to have to live decently, and figure, also, how much time I could give to each case. Of course, it goes without saying that a young man of high professional ideals does not think first of money, but first of his duty to his patient; yet he is forced, under sickness insurance, to make a decision between these two motives which often disastrously affects his attitude toward his work. It is only too easy to weaken, for he must live. The trouble with the scheme is that it encourages careless work by making it more easily profitable; the individual practice encourages good work, by making it, in the long run, more profitable.

"I dislike to touch upon the fact that the quality of young men choosing medicine as a career has not improved under sickness insurance, yet I believe it to be true. Bismarck hoped to combat socialism by such insurance, but on the contrary, it worked to encourage socialism. As a result there has been built up a bureaucracy which governs the whole system, and its members have been drawn from the laboring, clerical and generally less educated classes. More and more as the years go by the young students of medicine come from families of perfectly respectable, but not superior intellectual and emotional background. Response to professional traditions calls for certain native attributes which are not always acquired through university training alone, yet are of great social value in those who are to practice the difficult and dangerous art of healing.

"The American people will do well to pause long before adopting compulsory sickness insurance, remembering that such a system once instituted is sure to perpetuate itself. I have been in this country a year and a half. Some of the hospitals here are the most wonderful I have seen anywhere in the world, and I have travelled extensively in Europe. I wonder whether the average quality of medical care given in the United States is not superior to that which is given in countries where insurance

plans are in operation.

"May I close by quoting a line from Shakespeare, which seems pertinent: 'Seeking to better, oft we mar what's well."

Turning now to Austria, let us summon a witness who appeared before the Legislative Committee of the Medical Society of the State of New York when it was in session at Albany in January, 1935. He is Dr. Jacob L. Moreno of New York City, director of research, New York State Training School for Girls, Hudson, New York, and adviser of the Subsistence Homestead Division, Department of the Interior, Wash-

ington, D. C. Said Dr. Moreno:

"I know from experience with the actual reality that no matter how perfect the picture of ideal care for the poor that is presented by such schemes for sickness insurance, in practice they do not work. They cannot work, because they fail to take account of factors in human relations which are indispensable to the practice of the healing art.

"No physician is capable of properly treating the large number of patients sent him under sickness insurance. He is forced to evolve some mass production plan of operating his office to run people through his mill as fast as possible. A quick look, a stock prescription, a pat on the back, and

out the door...

"The 'rush' system of handling patients inevitable. When the technique of getting them in and out fast enough is perfected, the doctor begins to lose that intangible 'something' which is vital to both himself and his patient,—his morale, I do not know any doctor who remained long at this sort of practice in Austria who did not become hardened. A doctor's personal interest in his patient is essential. The response he makes emotionally to the trust reposed in him is important. If the patient comes to the doctor because of confidence in him and not merely because he is an insurance doctor, interest and insight are quickened.

"Every person's capacity to expand emotionally, and to sustain a confidential relationship, is limited. A physician may be able to maintain a keen mental activity while exemining a few cases a day, but after his limit is reached, the power to sustain the faculties on a high plane wanes, until, finally, when the last case of a long line is reached, the patient becomes merely a serial number on a piece of paper. Insurance forces on the doctor an utterly impossible human task—to sustain a genuine personal interest in all the individuals of a miscel-

laneous crowd at his door.

"The insurance doctor does the best he can, but patients suspect they would get better attention if they came to him during his private office hours when he could give them more time. This is a distinct and definite injury to the character of the physician. He must hurry through his insurance patients so that he can have plenty of his best self left to take care of his private patients. This is a corrupting influence. He knows he has not lived up to the highest tenets of his profession to give his best to every patient who comes to him. He has

been forced by circumstances created by law to do less than his best toward some of his patients, and even his best with the few who see him privately ultimately becomes

not so good as it was once.

"Nobody who has not seen such schemes in practice as I have, can realize how odious they are. They destroy everything that makes the healing art effective. A new face comes between the doctor and the patient, that of an inspector or supervising physician, or an insurance bureau bookkeeper, questioning this and that particular, without the intimate understanding derived from having seen and known the patient. At best, the real patient, the one for whom the mass production doctor is working, whom he must please if he is to live, is not the sick man, but an adding machine in the office of a bureaucrat who pays the fees out of an insurance fund. This man doesn't care whether the patient lives or dies, only how much he costs the fund. And his influence is exerted only in the direction of economy and other externals.

"Supervisors are needed in sickness insurance organizations. A good controller or supervisor who brings in many complaints against doctors is considered a good supervisor—he is headed for promotion because medical practice has now become a business instead of a profession. Thus do we destroy a truly healing relationship in which trust and confidence is the basis, and substitute a chain-store cut-rate imitation, which corrodes curative values needed to heal the

sick

"The system which we now have in the United States is not perfect. But I know from personal experience that the condi-tions imposed by compulsory sickness insurance are far worse. Insurance is a type of socialized medicine. It is impossible to socialize the doctor unless the business man, the banker, and the lawyer are socialized, too. Until the time comes, if it ever does come, when we have communism or some form of collectivism, compulsory sickness insurance simply will not work. Though it applies only to the lower income groups, those groups will always feel they are getting less than they ought to get, even if the doctors are men of quality having lucrative private practices in addition to their insurance practice. Like all half-way measures, it will fail, despite the well-meaning altruism of those who sponsor such legislation. They do not realize, as the physician does, who has practiced under such a system, how destructive it is to quality in medical care.

It is such a system as this which is proposed for the United States! Can the reader

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now appreciate why the medical profession in this country feels that in opposing it, they are fighting for their very existence as an honorable profession? We are asked to occupy our lives with false gestures of administering good medical care which the conditions will not allow us to give; we are asked to make ourselves a part of a gigantic bureauracy and play politics with human lives.

What then, is the answer to the problem of improving the health of the public? I have alluded to it briefly in the first part of this discussion; I should like to refer to it again now. Health education is the only sound measure. That portion of the public which is either ignorant or indifferent, need to know, and act on the knowledge that they must be examined by a physician, to learn their true condition; that they cannot tell it themselves, that they cannot rely on mere absence of pain as proof they are perfectly well. To teach people that they should have medical care when they are well and not wait until they are sick is an educational problem, and sickness insurance cannot possibly affect this element in the population. So far as any need for better facilities to care for catastrophic illness or acute diseases, there is no evidence that these emergencies are not adequately met in the free clinic, the free hospital, and the private physician's practice.

The medical profession does not quarrel with the social theorist who wishes to bring preventive medical care to more people than now get it. That many lack this care always has been true, and it is true in every country today where sickness insurance is practiced. The school physician finds many children who have defects of tonsils, adenoids, sight; many who are crippled; cardiacs. The world war disclosed fully that much medical care could be given the average citizen to his advantage, but it also disclosed a degree of indifference to their own condition, which was the basic reason for the continued existence of many of these defects. Are there fewer defects under sickness insurance in England, Germany or Austria? I know of no such figures. But I do know that America, under individualized medical practice, has a lower sickness rate than these countries, and that preventive medicine, so far as I can find any statistics, has gone farther here, especially in diphtheria inoculation, in which we far outstrip countries which have succumbed to the illusive dream of collective medical practice.

If there were a doctor on every street corner, and medical service were offered free of charge, a large multitude of people would not stop to get it. They would continue with their physical defects for any one of a dozen reasons, and every doctor knows what they are. There is refusal point blank to believe these matters to be important; there is lack of intelligence to understand explanations when made; there is plain indifference, and rebellious disbelief in "high brow" ideas. These are problems for the educator. People of this class are not yet ready for preventive medicine; they think they do not need the doctor until they fall ill. Then, as we have indicated, they can and do obtain medical service.

Are we quite prepared to desert individualism in medicine in favor of collectivism, or any of the various forms of the socialistic state? Let us consider this theme, because it is apparent that this is the fundamental issue implicit in compulsory sickness insurance.

It is chiefly since the world war but also to some extent before then that socialism or at least socialistic trends have become increasingly apparent not only abroad but at home. The early history of the world relates the gradual establishment of increasingly stringent fundamental customs which may be considered evidence of collectivism in the broad sense. The Renaissance period of the fourteenth century was the rebirth of individualism, when men again became conscious of their individual power, exercised it to a new degree and realized personal responsibility. The Reformation of a later day was but a manifestation of this individualism.

It was not until early in the eighteenth century that rationalism, as we know it, became at all firmly established and it took all of another 100 years or more to create a "rugged individualism" by the complete breakdown of the old fundamental customs as the result of broader and higher education, the wonderful developments of science, the mingling of commercial and scientific peoples and the international competition in industry.

The era of "rugged individualism" which followed, noted the most brilliant period of progress in every art and in every science. So much so is this the case that one easily reaches the firm conviction that true progress is due to individual rather than to collective effort. This is the period in which America rose to its pinnacle of success, and in retrospect of this rise we can all point to individuals and not to groups who are responsible for it. Our country had its origin from those seeking individual freedom, its constitution is based on this same principle, its greatest success resulted from the achievements of individuals and its glory will go down in history as created by

this "rugged individualism" rather than by group or collective effort in any sense.

In recent years, however, we have evidence of retrogression in the increasing domination of group spirit, the sacrificing of individual independence, a lessening sense of personal responsibility and a growing paternalism; the former intrepid pioneer in thought and act leaning more and more on the soft bosom of the state. Russia failed in her attempt in 1905 but succeeded in 1917, Italy followed in 1922, Germany after a trial as a republic for a decade or more has now also succumbed, and present day policies in our own country may throw us into the same class of nations yielding individualism to group domination and control.

The socialization of medicine is but a manifesation of the same spirit. The argument in its favor and those in opposition have been the subject of heated debate in recent years; they cover many pages of print which have been read and reread by us all sufficiently often to justify one opinion. At the moment the medical profession is concerned with fundamental principles; we are fighting to prevent collectivism from succeeding individualism. We wish to avoid the inevitable retrogression which according to all history results when group control supplants independent individual effort.

It is hoped that nothing which I have presented here will be taken to mean that it is not desirable to promote action to improve the medical care received by persons in the lower income group, or to provide methods to distribute the cost of this care. My contention here is that compulsory sickness insurance will not achieve either of these objects. The American Medical Association has made studies of many plans which have been tried in various communities, and its bureau of medical eco-

nomics presented a special report on this subject at the annual meeting held in May, 1935. This organization, as well as many state societies, including that for New York state, have approved plans for voluntary insurance, in which the vices inherent in the compulsory type are not to be found. These plans are not germane to this discussion, but I cannot dismiss the subject without adverting to them, to apprise the reader that the medical profession is interested in assisting the establishment of sound economic projects for the wider distribution of medical care. None of these plans is a panacea. Some of them will work in certain communities, but must be altered to fit the institutions of other communities. There is no "royal road." The path to improvement

is long and arduous. Many physicians feel poignantly that an injustice is done us when, by implication and direct statement, the public is asked to believe that the doctors of the nation as "merchants of medicine" are obstructing, for purely selfish reasons, a movement to provide adequate medical care for the masses. Let me ask if it is reasonable to suppose that a group of men with so long and consistent a record of devotion to the task of alleviating the sufferings of mankind are blithely to be outdone in effective humanitarianism, by members of certain pressure groups most of whom would not know how to pull a mote out of an eye? In making plausible theories we may be easily surpassed, for we are without skill in this; our claims for a sound and disinterested judgment rest with the very acts of performance on which society must depend for any improvement,

With the feeling that it is neither necesary nor desirable to distrust the competent man, nor to impugn his motives, this discussion is submitted for the thoughtful consideration of the public.

ANNIVERSARY DISCOURSE

Aspects of a Philosophy of Government in a Sick World

bу

WALTER LIPPMANN

When Dr. Hartwell and Dr. Pool invited me to speak here this evening, they suggested that I might talk upon some aspects of the relation between the medical profession and the community. They supplied me with a collection of pamphlets and reports and reprinted addresses dealing with medi-

cine in its public relations. I read them diligently. But the more I thought about the questions at issue, the more uneasy I became. For I realized that I did not really understand them and that all I could hope to do was to enlighten you about the extent of my own ignorance. At this point I began

The Eighty-niuth Anniversary Discourse delivered before the New York Academy of Medicine, December 19, 1935. Reprinted by permission from the Bulletin of the New York Academy of Medicine (December, 1935).

to wonder wistfully whether the Ethiopian war might not require my presence in London or Geneva or Addis Ababa tonight; for this seemed a not wholly unconvincing way of letting the Academy of Medicine solve its problems without my assistance.

I am making this confession of embarrassment and cowardice because it enables me to boast about my sudden discovery of a triumphant solution of this predicament. If I were a politician, I said to myself, I should, of course, have to act as if I knew the answer to every problem: what politician has ever admitted that he did not know the answers to anything? Perhaps if I were a commentator on current affairs I could not escape expressing an opinion even if I were not entitled to an opinion. But surely, I thought, in a gathering of medical men it will be easy to say candidly that there are aches and ills which flesh is heir to that even the best physician does not understand and cannot cure. After that I felt at ease. It is a great relief to come from the world of public affairs, where no one dares to admit that he does not know, where no one ever admits that he has made a mistake, where no one ever admits that he is puzzled, into a world where it is respectable and honorable and safe to put aside the pretension of infallibility and of omniscience.

I should like to discuss an aspect of the philosophy of government in a disordered world. Philosophy is perhaps too pretentious a name: what I have in mind is an attitude towards government which, when it becomes articulate and explicit, may be

dignified as a philosophy.

In the realm of government, whether a man is simply an interested citizen or an active politician, or a responsible official, or a student and thinker, the subject matter is complex, it transcends his personal observation and experience, it comprises an extraordinarily large number of intricately related variable elements. In order to think about politics at all, in order to make public affairs comprehensible to the human mind, men have to create for themselves some kind of mental image, some sort of model, some hypothetical pattern which is simpler and more familiar than the reality which William James used to call the buzzing, blooming confusion of the actual world. It is beyond the power of ordinary minds-I am tempted to say that it is beyond the power of any mind-to deal continually and effectively with the data of experience in all their raw, heterogeneous fullness.

At different times in the course of history men have used different images to represent to themselves the social order in which they live. One of the oldest and most persistent of these images is derived from the patriarchal family; the relation between the ruler and his subjects is conceived as similar to that between the patriarch and his children. Then there is the image derived from war: the ruler's relation to his subjects is conceived as the relation between the chieftain and his warriors. This, incidentally, is a social image which has recently had a spectacular recurrence in the fascist states of Europe. Again and again, from the time of the Graeco-Roman thinkers, men have at certain times conceived society as a body politic in which each class, each rank, was an essential member. Usually the current image has been an imitative reflection of the accepted or dominant science of the age. Thus in the Eighteenth Century, the profound impression made upon men by the Newtonian conception of the physical world was carried over into politics, and men conceived society as a system of forces. Our own constitutional system was devised by men who had the daring to conceive a federal republic in which the states would remain as distinct as the separate planets and as unified as the solar system. In the Nineteenth Century, the Darwinian imagery took possession of many political thinkers: economic competition and the imperialist competition of national states were regarded as illustrations of the struggle for existence of a surplus population in an insufficient environment and of the survival of those most fitted to survive.

Now in our own day a different image has taken possession of many influential minds. Let us call it the image of the statesman as engineer. It is not hard to account for its popularity and persuasiveness. The most obvious triumphs of modern man, those which are most easily appreciated, are his great buildings, his great ships, his great machines, his great tunnels, dams, canals. Mankind has been profoundly impressed with the contrast between the efficiency of these engineering works as compared with the inefficiency of statesmen, of financiers, and of business men. The engineer, it seems, is able to achieve what he sets out to achieve. He can plan and he can carry out his plan. He knows what he is doing and he does it.

So the idea took hold that society might be run by engineers, might be deliberately constructed according to a plan and then operated as efficiently as a great machine. When I was a young man, Mr. H. G. Wells was the prophet of this vision, and there were few in my generation who were not spellbound by the idea that if only we could get rid of politicians and of competitive

business men and turn society over to the engineers, a clean, orderly, efficient and gra-cious civilization would be brought into This vision, if you will remember, played an immense part in the early enthusiasm for Mr. Hoover, Around 1920 he was hailed by many of us as the ideal ruler of men because he was not a politician but an engineer, though today, such is the changeableness of men, he is criticized precisely because he is not a politician. In the postwar era the image of the engineer seems to have taken hold not only of the best minds of the Republican Party in America but of the best minds of the Communist Party in Russia. One of the chief reasons why Soviet Russia has exerted such attraction upon so many men is that the planned economy of Russia seemed to be an example, the first in history, of the application of engineering principles to human society. There were several years, I should say roughly from the crash of 1929 to the end of 1933, from the breakdown of prosperity to the beginning of recovery, when the ideal of an engineered and planned economy had almost completely captured the imagination of the Western World. Everyone who raised his voice talked about planning something, the Chamber of Commerce, the heads of hig corporations as well as the New Dealers and the Progressives. No doubt they had different ideas of how to plan and what to plan for, but the underlying image dominated most minds. The notion finally reached its grand climax, and its reductio ad absurdum, in the vogue of technocracy.

The point I wish to make is that the conception of government as a problem in engineering is a false and misteading conception, that the image of the engineer is not a true image of a statesman, and that society cannot be planned and engineered as if it were a building, a machine, or a ship. The reason why the engineering image is a bad image in politics, is a bad working model for political thought, is a bad pattern to have in mind when dealing with political issues is a very simple one. The engineer deals with inanimate materials. The states-

man deals with the hehavior of persons. A mode of thought appropriate to the organization of inanimate elements cannot be applied successfully to the organization of animate ones. It is as radical a misconception as would be the attempt to become an architect by studying music or a horticulturist by studying astronomy. The engineer who plans a building can calculate the weight which his steel will sustain. But he does not have to consider whether his girders and his bricks will renew their vitality from day to day and reproduce their

kind from generation to generation. Nor does he have to consider whether they will be willing to hang together in the structure into which he has put them, whether the girders, for example, will grow weary of supporting the bricks, and begin to have purposes which he did not assign to them

when he made his plan. Surely it is almost self-evident that if, as an instrument of political thinking, we must have a working image derived from some more familiar discipline, then it is to the biological sciences that we must look for an analogy. Since the statesman deals with living things, he had better take his analogies and his inspiration from those who deal with living things, from farmers, and animal trainers, and teachers, and physicians rather than from astronomers, and engineers and architects. For analogies, images, working hypotheses, patterns, whateyer you choose to call them, which come from man's dealings with the world of living organisms will at least have the virtue of keeping vividly in his mind a sense of what he is handling. Governing is an art, It requires, as all arts do, a sense of touch, an intuitive feeling for the material, a kind

of sixth sense of how it will behave. The masters of any profession know something more than it is possible to communicate; they are so sympathetically at one with their subject that instinctively they possess the nature of it. Before they have reasoned consciously, they have smelt, have felt, have perceived what it is and what to do. It used to be said that you did not have to be in the ring with Jack Dempsey for fifteen rounds in order to learn that he was a champion. Likewise, the master of a subject, whether he is a carpenter or the rider of a horse, a diagnostician or a surgeon, will quickly disclose in the inevitable emergencies of any human activity whether he possesses that intimate feeling, that flair, that uncalculated aptitude which distinguishes the first rater from the second-

Now among public affairs as elsewhere, since everything cannot be reasoned out a priori in each emergency, it is of the utmost importance that the political tradition of a country should predispose men towards a true and reliable sense of how living men in a living society behave. That is why the dominant imagery is so important.

The image of a planned and engineered society has the effect, I believe, of destroying the intuitive feeling for what society actually is and of the sense of touch in dealing with human affairs. The grosser consequences of it are evident enough: in the supreme impertinence with which com-

munist and fascist states treat human beings as if they were animate materials to be fabricated by the dictators; in the ruthlessness with which they cut human nature to the shape they desire and nail together in designs of their own the living spirits of men. This notion that society can be engineered, planned, fabricated as if men were inanimate materials becomes in its extremist a monstrous blasphemy manifestations against life itself. It can also take milder forms which merely produce temporary confusion and inconvenience as in the fantastic attempts, now happily concluded, to write in three or four months some five hundred codes for the detailed conduct of all business throughout continental America.

The man who approaches public life with a feeling for living organisms will not fall into the illusion of thinking he can plan or fabricate or engineer a human society. He will have the more modest aim of defending it against the invasion of its enemies and of assisting it to maintain its own balance.

Remembering that a society is an association of living persons, and not an arrangement of inanimate materials, he will never imagine that he can impose upon those living persons and their descendants his private preferences. He will recognize that the function of government is not to decide how men shall live, what kind of men they shall be, what they shall spend their energies upon. Government cannot direct the life of a society. Government cannot shape the destiny of the human race.

There are some who think that government should use all its powers of coercion to make the social order correspond with their own ideal of a nobler and more satisfying social order. But this is as if a doctor dealt with a patient on the assumption that he must use drastic medicine if he finds that his patient is not as strong as Hercules, as beautiful as Apollo, and as wise as Zeus. He would be an absurd doctor. The sound physician, I take it, is not attempting to make a superman out of his patient. He takes measures to protect him against the invasion of hostile bodies. He cultivates habits which improve his resistance. He intervenes with medicines and surgery when he thinks he can assist the patient in recovering his own equilibrium.

Nearly 250 medical men heard Dr. Francis G. Blake, professor of medicine at Yale University, discuss diagnosis and special treatment of respiratory diseases at the monthly meeting of the Williamsburgh Medical Society in the Jewish Hospital, 555 Prospect Place, on Dec. 9.

Always, if I understand the faith of the physician, he regards himself not as the creator, designer and dictator of the nature of man but as the servant and the ally of nature. There are times to be sure when his patient is prostrate and the doctor must be the master of his whole regime. But even in these times, the good doctor will be continually seeking for ways, not to make a new man of his patient but to encourage those recuperative powers which may at last enable the patient to walk again on his own feet.

There is a vast difference between those who, as engineers dealing with inanimate materials, can dictate to nature and those who, as physicians dealing with living organisms, must respect nature and assist her. My thesis is that statesmen had better think of themselves as physicians who assist society than as engineers who plan and fabricate it. They will understand these problems better if they realize that society has not been invented or constructed by any man or any set of men but is in fact the result of the infinitely complex adaptations by innumerable persons through countless generations. Its destiny is beyond the power of the human mind to imagine it. Its reality is complex beyond the mind's power to grasp it. Its energies are beyond the power of any men to direct it. Society can be defended. Its adjustments can be facilitated. Its various purposes can be clarified, enlightened, and accommodated. Its aches and pains can in some measure be relieved. But society is not and never will be a machine that can be designed, can be assembled, can be operated by those who happen to sit in the seats of authority.

To know this, to realize the ultimate limitations of government, and to abide by them, is to have that necessary humility which, though for the moment it is at a discount in many parts of the globe, is nevertheless the beginning of wisdom. Without it men will use political power for ends that government cannot realize, and in the vanity of their delusions fall into all manner of cruelty, disorder, and waste. They will have forgotten to respect the nature of living things, and in their ambition to be as gods among men they will affront the living god. They will not have learned that those who would be more than human end by being less than human.

The society elected as officers: Dr. Leo Loewe, president; Dr. H. M. Mandelbaum, first vice president; Dr. I. E. Siris, second vice president; Dr. J. F. Morris, treasurer; Dr. C. Goldman, associate treasurer, and Dr. B. B. Berkowitz, secretary.

Society Activities

Committee on Prize Essays

The Merrit II. Cash Prize and the Lucien Howe Prize will be open for competition at the next Annual Meeting of the Medical Society of the State of New York, April

27, 1936.

The Lucien Howe Prize, of one hundred dollars, will be presented for the best original contribution on some branch of surgery, preferably Ophthalmology. The author need not be a member of the Medical Society of the State of New York.

The Merrit II. Cash Prize, of one hundred dollars, will be given to the author of the best original essay on some medical or

surgical subject.

Competition is limited to the members of the Medical Society of the State of New York, who at the time of the competition are residents of New York State.

The following conditions must be observed:

Essays shall be typewritten or printed and the only means of identification of the author shall be a motto or other device. The essay shall be accompanied by a scaled envelope having on the outside the same motto or device and containing the name and address of the writer.

If the Committee considers that no essay or contribution is worthy of the prize, it will not

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All essays must be presented not later than April 1, 1936, and sent to the Chairman of the Committee on Prize Essays of the Medical Society of the State of New York, 2 East 103rd Street, New York City.

JAMES ALEXANDER MILLER, M.D., Chairman

Medical News

Erie County

Dr. Grover Pemberthy, of Detroit, will address the surgery section of the Buffalo Academy of Medicine on "Tannic Acid Treatment of Burns" on January 8; and on January 15 Dr. C. R. Austrian, of Baltimore, will speak to the medical section on "Differential Diagnosis of Pulmonary Diseases."

New York County

THE "DANGER OF OVERESTIMATING mental ills as a cause of juvenile delinquency" is stressed in a report to the Domestic Relations Court in New York City by a committee of the New York Academy of Medicine which was asked to investigate the medical and mental disease clinics of the court and advise how they could be improved.

The problem facing the Domestic Relations Court is much more than a purely medical one," said the report. "In dealing with this problem, the field of psychiatry has an important contribution to make, but it does not offer the complete solution. The situation calls for cooperation between all the various social, legal, educational and medical agencies available to remedy the conditions which are chiefly responsible for the startling increase of crime in recent years." The doctors assert that "it is not even desirable to provide a complete psychiatric examination for every client," but rather to intensity social case work. "A great majority of the cases are those which a well trained social worker should be able to handle or which an adequately super-

vised probation officer would be able to understand and adjust."

Steuben County

Dr. H. E. Auringer of Addison, was elected president of the Steuben County Medical Society at its annual meeting on November 14 at the Hotel Wagner, Bath. Dr. Auringer served during the past year as vice-president of the County Society and now succeeds Dr. E. P. Smith of Cohocton as president. Dr. C. M. Lapp of Corning was elected vice-president and Dr. R. J. Shafer of Corning secretary-treasurer. Following a luncheon the main address was given by Dr. Albert Kaiser of Rochester on: "Indications for Tonsillectomy." The Society's next meeting, the second Thursday in March, will be held in Corning.

Westchester County

DR. THEODORE WEST of Port Chester was elected president of the Westchester County Medical Society at its annual meeting at White Plains on November 19. Other officers chosen were: Dr. Morley T. Smith of New Rochelle, vice-president; Dr. Erich H. Restin of Mount Vernon, second vice-president; Dr. Merwin E. Marsland, of Mamaroneck. secretary; Dr. Harry Klapper of White Plains, treasurer. Papers of great interest on medical economics were read by Dr. R. G. Leland, Director of the Bureau of Medical Economics of the A.M.A., and by Dr. F. E. Elliott, Chairman of the Committee on Medical Economics of the State Society.

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Across the Desk

The Great Carrel Dry Storage Idea

ALLURING POSSIBILITIES intrigue the imagination as the mind plays over the picture conjured up by Dr. Alexis Carrel in his lecture at the New York Academy of Medicine the other evening on "The Mystery of Death." What he was really talking about was how to cheat death, which of course is what the doctors are trying to do all the time. One way he suggests to do it, not yet practicable for humans, however, would be to put the subject into a state of suspended animation. "Some individuals," he remarked, "could be put into storage for long periods of time, brought back to normal existence for other periods, and permitted in this manner to live for several centuries." He did not say he had anybody particularly in mind to be put into storage, but no doubt he could supply a few names, and we could all help with a few more, and it would really take no time at all to fix up a list that would go through with a whoop if put to a vote.

The storage could last "for long periods of time," suggests Dr. Carrel. That is the fine thing about it. The longer the better. The subject could have one of the hotel _placards hung around his neck: "Do Not Disturb." In this simple manner we could wish all our public pests of today on the next generation. What a panacea. We can easily imagine some Nosey Parker of a scientist poking around in the storage warehouse a century hence and exclaiming, "There is a perfectly grand looking man, let's wake him up." Only to say firmly after a few weeks of having him around, "Back to storage you go!" Only the subject's waking days would count as his lifetime, and Dr. Carrel thinks that in this way the storagec might "live for several centuries." A practically perpetual joke on every generation unwise enough to rouse him from his dreams.

NEW MUMMY SONG—"How DRY I AM!"

Dr. Carrel even suggests how the thing is to be done. The subject would be dessicated, or, in plain English, dried. "It is known," he said, "that certain animals such as the small arthopod, tardigradum, stop their metabolism when they are dried. A condition of latent life is thus induced. If, after a lapse of several weeks, one moistens these dessicated animals, they revive and are capable of leading a normal life again." Hope for the scheme is even seen in the report that "the tail of a rat, after being dried, has been transplanted with success to another rat."

What we would say, then, to the bore, or the pest would simply be, "Dry up!" In some climates he would be put in the oven, in our glorious regions of sunshine he could be hung out on the fence. Clearly, however, some authority would have to be set up to decide who should be dried and who not. But that would be easy. Germany now has courts to say who shall be sterilized, and has medical committees to permit or deny abortion. Our newspapers are filled with suggestions that courts or commissions might sanction euthanasia. Why not have the same body pass on requests to dry up, say, Public Pest No. 1? This might just as well be decided now as to wait till the scientists perfect the process. It may not be long now. "We should remember," says Dr. Carrel, "the utopias of today are the realities of tomorrow."

It is inspiring, anyway, to think of the great storage warehouses filled with those better there than here. But like every Utopia, it has its disquieting thought: Moisture would bring them back to life. What if the roofs should leak?

"The Hell of Staying Home"

"THE HELL OF WAR" used to be a favorite title for pacifist sermons. Which led a railroad man to write an article on "The Hell of Railroading," because so many operatives were killed or injured. "The Hell of Motoring" came next, with 30,000 to 35,000 killed on the highways every year, and countless thousands maimed and disabled. But who would have expected a chapter on "The Hell of Staying Home"? Figures just out estimate that 34,500 persons were killed in home accidents in 1934. The National Safety Council estimate that more than 150,000 persons were permanently disabled in home accidents and 5,000,000 temporarily disabled. These accidents included falls, burns, explosions, cuts, asphyxiation, poisoning, and electrical shocks. To meet this situation the Council has published an attractive booklet titled "Safe at Home," telling how to discover and eliminate existing dangers, and what to do in case of fire, asphyxiation, and other accidents. Copies may be had without charge, till the supply is exhausted, from the State Health Department at Albany.

We require automobile drivers to pass examinations and take out licenses before they go out on the road. Why not make people take out licenses before they engage in such a perilous business as staying home?

Books

REVIEWED

Diseases of the Rectum and Colon and Their Surgical Treatment. By J. P. Lock-hart-Munmery, F.R.C.S. Eng. Second edition. Octavo of 605 pages, illustrated. Baltimore, Williams & Wilkins Company, 1934. Cloth, \$10.00.

Among the chapters omitted in the second edition are those on the physiology, and the bacteriology of the large bowel, and among the subjects omitted are intussusception, chronic mucous colitis, and sacral anesthesia. Two new chapters have been added, one on precancerous conditions and

one on acute intestinal obstruction.

The author is very fair and open minded in stating his changed opinion regarding the place of radium in the treatment of malignant diseases of the rectum and anus. In the 1923 edition he states: "So far no single instance of an undoubted cure of rectal cancer by the use of radium has been brought before the medical profession. After considerable experience, I personally advise that it should not be used in the treatment of growths of the bowel, with the possible exception of epithelioms of the anus."

In the 1934 edition he writes: "There is no doubt that in radium we have a very valuable means of treating malignant growths if we can use it properly, —. Progress in this direction has been very rapid lately, and the fact that in a few cases we can completely and permanently eradicate cancer of the rectum or anus without leaving any damaged tissues, and without the necessity of a colostomy, proves that success is possible. If a cure can be obtained once, it is obvious that it can be obtained many times if we can get the technique of its application right, and this should encourage us to persist with this method of treatment."

In the chapter on precancerous conditions not only is multiple adenomata included,

but also single adenomata,

If a book by so outstanding an author as Mr. Lockhart-Mummery needs a recom-mendation then we do most heartily recommend this work as one of the best on the subject.

CHARLES GOLDMAN

Methods of Treatment. By Logan Clendening, M.D. Fifth edition. Octavo of 879 pages, illustrated. St. Louis, C. V. Mosby Co., 1935. Cloth, \$10.00.

This book, now in its fifth edition, having stood the test of time, has won for itself a

unique position among medical books of its kind. Between its covers one can find practically every form or type of treatment now used in the practice of medicine. Great care has been taken to make it of practical value from the standpoint of technique employed in the administration of drugs. For this reason it should appeal to internes and those who have little experience in modern therapy. Intravenous medication, spinal and cisternal puncture, artificial pneumothorax, duodenal drainage, moidoscopy, therapeutic use of adhesive tape, blood transfusion, and numerous other procedures now fully established as essential to the expert training of the doctor of today, are carefully and thoroughly explained.

The chapters on "The Application of Therapeutics to Particular Diseases" are concise, meaty, and devoid of unessentials. It is not possible for any author, in a volume of this kind, to offer an encyclopedic array of treatments sponsored by various reliable authorities. He has, however, presented a splendid selection from the best

minds in medicine.

It is always the privilege of the reviewer to find some weak point in the subject matter under consideration, and too often the criticisms are trivial and unwarranted. The author of this book has left very little, if anything, that does not meet with the approval of the well trained clinician. There are instances where a certain subject has not been thoroughly considered, such as poisons, where only a few of the toxicological problems have been dealt with. It would be impossible to give them all.

The most valuable and instructive feature of this volume is that it gives the general practitioner, in concise form, treatment, technique, dietetics, glandular therapy, and all other forms of therapy in a way that is readily understood and comprehensible. The method of presentation and the author's style and command of English makes it a

pleasure to read.

F. Schroeder

Dietetics for the Clinician. By Milton Arlanded Bridges, M.D. Second edition, revised. Octavo of 970 pages. Philadelphia. Lea & Febiger, 1935. Cloth, \$10.00.

This! - '-	٠.٠		thousand
pages .			material
from			urces. In
this edition n	nuch of	the subject	matter has

been augmented and rewritten so that the book continues to remain a good reference work. However, very few general practitioners have the time to avail themselves of the extensive bibliography. It contains close to 400 pages of food tables, sample diets and sample menus. In addition the author has included an extensive bibliography pertaining to the subject. These features make the book a ready reference on diet and a guide to further study. In advising on the various diets, the author uses average portions. In our experience with diet prescription writing, the average portion is construed differently by various people. There is no standard for an average portion. It is hoped that in any future revision, the author will describe all diets and portions quantitatively rather than using just the word, average. This book could easily be divided into two books. One would contain the necessary discussion on diseases and their diets. The other would contain general dietetic and nutritional bibliography, tables, charts and sample menus.

Morris Ant

Principles and Practice of Urology. By Frank Hinman, M.D. Octavo of 1111 pages, illustrated. Philadelphia, W. B. Saunders Company, 1935. Cloth, \$10.00.

This book is a major contribution to the literature of urology. The author, in his preface, says, "At the outset, the objective was the presentation of the principles of urology in a form which would be of practical use to the medical student and the man in general practice. The book was not to be written for the urological specialists except for use by them in the medical education of others. In the end, the book covers in detail the principles of foundation and of practice and is neither a primer nor a compendium. It includes everything necessary for the instruction of the medical student, covers the field completely for the general practitioner, and should prove of interest and value as a reference book to the trained urologist." This very modestly describes the book. The chapters on Biology, Embryology, Anatomy and Physiology are superb. It is the opinion of the present reviewer that this part of the book will stand as a classic for many years.

The clinical principles of urology, including symptomatology, types of examination and methods of making a diagnosis are

presented clearly and concisely.

The various diseases of the uro-gential system are taken up and discussed in a logical sequence and from every angle. The discussions of symptomatology are particularly interesting, since not only are the symptoms noted and described but the underlying factors accounting dividual symptoms are carefully discussed. The outlines of treatment are rather briefly but adequately presented.

The book is very well illustrated and the literary style is delightful, which makes

for easy reading.

The urologic surgeon will note with regret that there was not room in a single volume for any detailed description of operative and other technical procedures. However, the book as it stands is a magnificent piece of work and should be in the library of every urologist, general surgeon and general practitioner.

N. P. RATHBUN

Doctors and Juries. By Humphreys Springstum. Duodecimo of 155 pages. Philadelphia, P. Blakiston's Son & Company, 1935. Cloth, \$2.00.

This brief hand-book deals in main with the legal inter-relation of Doctor and Patient, based upon the substantive and adjective principals of Torts. It should be fascinating and enlightening especially to the physician who is as yet unaware of his legal obligations to the community at large.

The author presents a word picture of the medical profession, off and on the witness stand, giving warning of its pitfalls and the avoidance thereof.

The chapter differentiating expert from opinion evidence is most invaluable to the legal as well as medical fraternity.

It is advisable that all medical practitioners not only read but digest its contents.

S. INGRAM HYRKIN

Elementary Human Anatomy Based on Laboratory Studies. By Katharine Sibley. Octavo of 360 pages, illustrated. New York, A. S. Barnes & Co., Inc., 1935. Cloth, \$4.50.

Viewing this work from the standpoint of a physician one feels great admiration for the author and feels a certain sense of scientific fellowship for those who will learn their anatomy from this text. The contents and terminology are taken from authentic The subject is dealt with thoroughly and the book admirably fills the need for which it is intended.

The text deals not only with myology, osteology and syndesmology but includes the digestive system, organs of special sense

and the ductless glands.

With the definite knowledge gained from a book of this type our teachers of health education cannot fail to become more proficient and enthusiastic in the care and development of the children entrusted to their care. SAMUEL ZWERLING



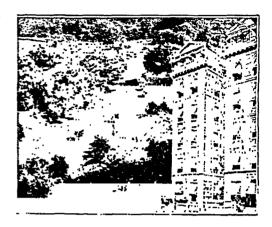
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Another student activity is the school paper or magazine. Many a successful writer has made the start on a school publication. For that matter, however, everyone, even in the most every-day business life, has more or less writing to do, and work on the student periodicals, in school and college, gives ease, fluency, and facility in handling our sometimes rather balky language. The pleasure of being able to dash off a rattling good story or a humorous or serious bit of verse is also one of the joys that help make life worth while.

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Travel and Hotels

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Endeavoring to meet a growing demand for longer voyages aboard its two large "pleasure-planned" liners, the "Queen of Bernuda" and the "Monarch of Bernuda," two special cruises, one of eight and another of nine days, have been scheduled aboard the "Queen," in addition to the regular Triangle Cruise, James N. Findlay, Passenger Manager of the Furness Bernuda Line, amounced. Never before has the Furness Pernuda Line offered such an extensive program of winter cruises.

Frequently, according to Mr. Findlay, returning passengers have complained that the two-and-a-half-day voyage to and from Bermuda does not allow time to fully enjoy the advantages of the two vessels, both of which were constructed primarily for the transportation of passengers and are the only large ocean liners offering a private bath with every room

even at minimum fare.

Sailing January 6 in her eight-day cruise, the "Queen" visits Nassau and Havana. At Nassau, the resort-capital of the Bahamas, a full daylight day is allowed ashore with ample opportunity to visit the resort's famous beaches and show places. Leaving Nassau that evening the "Queen" makes a fast run to Havana, arriving at 2 P. M. the following day. With the steamer as headquarters, two days and a night are spent in the Cuban capital.

January 16 the "Queen" sails on one of her famous seven-day Triangle cruises to Bermuda and Nassau. On this voyage a full daylight day is spent in Bermuda and an afternoon and an evening are allowed in Nassau. The third spectacular trip starting January 23 is a nine-day itinerary that includes Bermuda and Havana, with a day in Bermuda and twenty-seven hours to enjoy Hayana's Casino, cabarets,

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Special entertainment programs at sea have been arranged, to make the cruises particularly attractive. Aboard the "Queen" there is every luxury and facility for pleasure and enjoyment, including a \$250,000 dance floor, a tiled swimming pool, gymnasium, several cafes and cockail bars, and an unusually large sports deck running unobstructed the full width of the ship.

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Travel Brevities

Among the guests at the Elbow Beach Hotel in Bermuda, recently, were Dr. and Mrs. Herman Schucart, New York City; Dr. and Mrs. Norman D. Samson, Kearny, N. J.; Dr. and Mrs. Alfonso L. Algorer, Brooklyn, N. Y.; Dr. and Mrs. H. Leslie Salov, Newark, N. J.; and Dr. A. M. Wehenkel, Detroit, Mich.

Among the New Yorkers, passengers aboard the "Queen of Bermuda" on a December voyage, were Dr. and Mrs. Warren Hildreth.

Dr. M. F. Steenberg, Dr. Alan Leslie, and Dr. Sidney Silverstone, of the Mount Sinai Hospital, New York City, took a well-carned rest at the Inverurie Hotel in Bermuda during December.

With the recent opening of the ice rink in the Convention Hall at Atlantic City, ice hockey and ice skating have been added to the already diversified list of sports to be enjoyed at that resort. The city's widely known ice hockey team, the Sea Gulls, recognized as one of the greatest non-professional teams in America, meet hard hitting, fast skating opponents every Priday night. The rink is available for public skating every afternoon and evening, while salt water pools, horseback riding, bicycling, wrestling, boxing, and basketball contests, are other diversions available for the mid-winter vacationists at the "World's Playground."

An informative and rather interesting booklet on tropical trips for the season 1935-36, is distributed by the Atlantic Coast Line. Representative Southern resorts are briefly described. Golf courses, hotels, and boarding houses are listed. Fares and other information pertaining to the railroad are included also to make the "guide" as helpful as possible to the prospective traveler and vacationer. In all, it is well illustrated and a very handy directory to keep on file. A copy may be obtained by applying to the General Eastern Passenger Agent's offices in New York City, or through the Travel Department of the New York STATE JOURNAL OF MEDICINE.

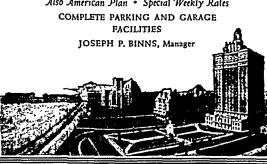
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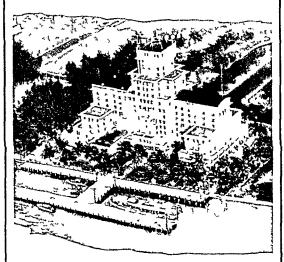


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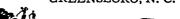


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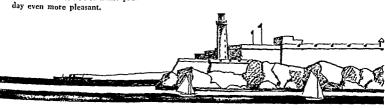


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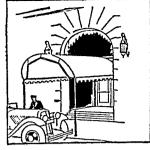
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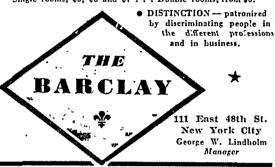
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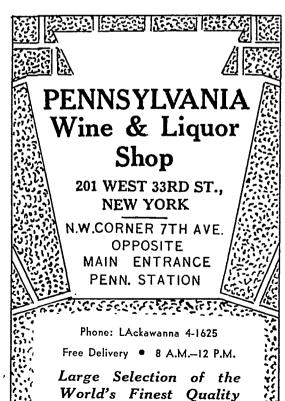
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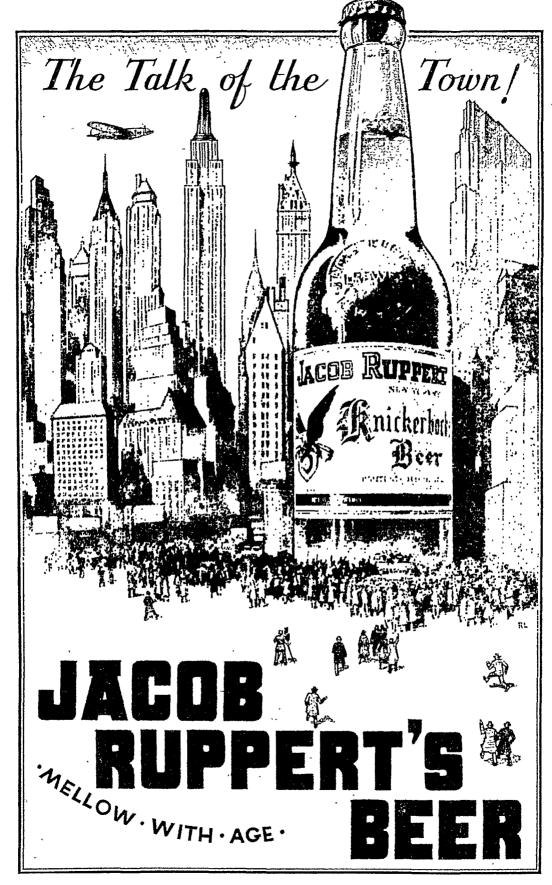
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S. R., Irvine, M.D.; Alan C. Woods, M.D.; Harold H., Joy, M.D.

Face Pain

Case Report—Traumatic Division of Transverse Colon and Complete Loss of Greater Omentum, with Recovery

Purpura Hemorrhagica with Intracranial Hemorrhage Paul H. Garrey, M.D., and Doran J. Stephens, M.D.

> The Prostatic Problem—Present Status Henry G. Bugbee, M.D.

Deafness—Diagnosis Based Upon Functional Testing
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Case Report—Derimatitis Due to a Card Table Cover Henry D. Niles, M.D.

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EXHIBITORS will have the prospect of reaching in person the greater portion of 13,986 physicians of Greater New York, many of the 8,027 up-state physicians, as well as hundreds from neighboring states. Every exhibit will be described in the program which appears in the April 1st issue of this Journal, and exhibitors will find it an advantageous tie-up to use advertising space in this SPECIAL CONVENTION NUMBER. Three months prior to the convention, 80 per cent of the exhibit space has been assigned—those who have not reserved space will find it advisable to do so at once.

ADVERTISERS should plan immediately for the space and copy they will use in the SPECIAL CONVENTION NUMBER OF THE NEW YORK STATE JOURNAL OF MEDICINE scheduled for APRIL 1, 1936. Regular advertisers will find it profitable to increase their space as the additional number of advertisers using this issue may subordinate their usual advertisement, and the importance of this particular issue to the physicians increases the attention value and the opportunity to impress subscribers as well as the thousands of additional readers receiving the SPECIAL CONVENTION NUMBER.

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Severe Primary Dysmenorrhea—Relief by Resection of the Superior Hypogastric Plexus	Travel Two Excellent Cruises

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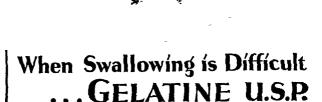
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Bacteriologically safe...pH of about 6.0... odorless...no carbohydrates ... made as carefully as an ampule solution.

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Please send me FREE your booklets, "Feeding Sick Patients," "Feeding Diabetic Patients" and "Reducing Diets,"
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A DOUBLE STRENGTH EGG NOG IN BOTTLES



All the goodness of strictly fresh egg yolks, grade A milk, and fine brandy, prepared in a most pleasing form to stimulate return of strength in cases of run-down or weakened conditions as a result of overwork, illness, or operations. A superb food beverage of over 40 delightful uses.

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 Distributor appointments now being closed—several good territories still available. Write for details.

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IAGNOSIS-pneumonial Pneumococcus pneumonia? Is serum therapy indicated? That depends on the type of the causative pneumococcus.

The physician calls for Rapid Typing sera Lederle, Types I and II, the types for which" Council-Accepted" therapeutic sera are available. Microscopic examination of a fleck of the patient's sputum mixed with the required amount of specific typing sera, reyeals typical changes in the capsule-Neufeld reaction -in the mixture that identifies the type. These changes consist of a swelling of the capsule with a sharp definition of outline.

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Early administration is essential to secure the radical reductions of average mortality obtainable

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Rabbit Typing Sera Lederle (Neufeld Reaction) Types

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Lederle Bivalent, Type

I and II, or Type I or Type II—

10,000 and 20,000 Units

PREVENT KETOSIS OF PREGNANCY WITH KARO IN THE PRENATAL DIET

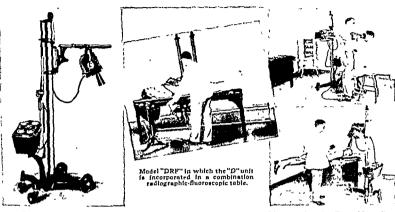
ee Enlarging of the uterus often causes reflex vomiting. Unless carbohydrate is taken throughout the day to maintain the blood sugar at high levels, Ketosis results. This disturbance aggravates the vomiting, frequently beyond control because of the inability of the damaged liver in pregnancy to resist Ketosis. **

-Kugelmass, Clinical Nutrition in Infancy and Childhood (p. 53)

KARO is an ideal carbohydrate to combat Ketosis. Karo consists of palatable maltose and dextrose (with a small percentage of sucrose added for flavor) quickly absorbed and the non-fermentable dextrins that are gradually transformed into simple monosaccharides. Karo can, therefore, be fed in larger amounts than simple sugars without danger of digestive disorders—fermentation, distention, diarrhea...Karo may be added as Syrup or Powder to milk, cereals, gruels, fruits, vegetables, desserts and refreshments. Whatever the prenatal dietary indicated, Karo will furnish the mixed sugars necessary to combat Ketosis. And the earlier in pregnancy the addition is made the less the danger of Ketosis.



WHAT OIL-IMMERSED X-RAY APPARATUS HAS CONTRIBUTED TO OFFICE PRACTICE



Model "D" Mobile—compact, conserves floor space, and can be operated in any part of the building by plugging in to the nearest electric service outlet.

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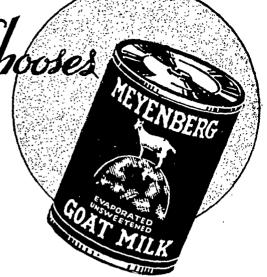
of the body as short as % second. The quality of the resulting radiographs leaves nothing to be desired.

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Address	* **** ** ******************
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In almost twenty years' constant use and pre-scription in these disturbances, no case has been reported of either effection or affection of more remote areas

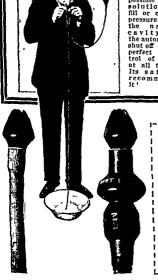
Beware of other irrigators which do not have

the NICHsafety features has special notched muz zles which make it im possible for solution to fill or create pressure in the nasal eavity and the automatic shut off gives perfect perfect con trol of flow at all times Its safet v recommends

At this Price—Only One to a Physician

The NEW YORK STATE IOURNAL OF MEDICINE, through special arrangement with the manufacturer, makes it possible for you to obtain ONE Nichols Nasal Syphon at a saving of \$3.25. If you have not already ordered yours, fill in the coupon and enclose it with your check to either the Journal or the manufacturer, and it will be mailed you at once.

SJ-36 2



	Name
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P	ease mail me at once a Nichols Nasal Syphon for m
Gent	lemen.
Gent	
New Gent	lemen.

City and State

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PUBLISHER'S CORRECTION ON ADVERTISEMENT

On page XXVIII of the Medical Directory, 1935-1936 edition, appears an advertisement of the Planters Hi-Hat Peanut Oil, and in paragraph 4 at the lower side of the page, a statement appears, reading as follows:

"The highest coefficient of digestibility has been given Planters Peanut Oil by Bulletin 505 of the United States Department of Agriculture."

This statement should have read:

"PEANUT OIL IN ITSELF; HAS BEEN GIVEN THE HIGHEST COEFFICIENT OF DIGESTIBILITY ESTABLISHED BY BULLETIN 505 OF THE UNITED STATES DEPARTMENT OF AGRICULTURE."

Because of the impossibility of correcting the original page, we have decided to publish this announcement which corrects both publisher and advertiser.

THE PLANTERS EDIBLE OIL CO. SUFFOLK,



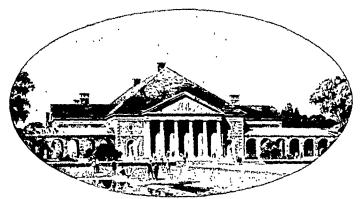
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American
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(Oil of Arachis)
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SARATOGA SPRINGS AUTHORITY

155 SARATOGA SPRINGS, N. Y.

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All Varieties
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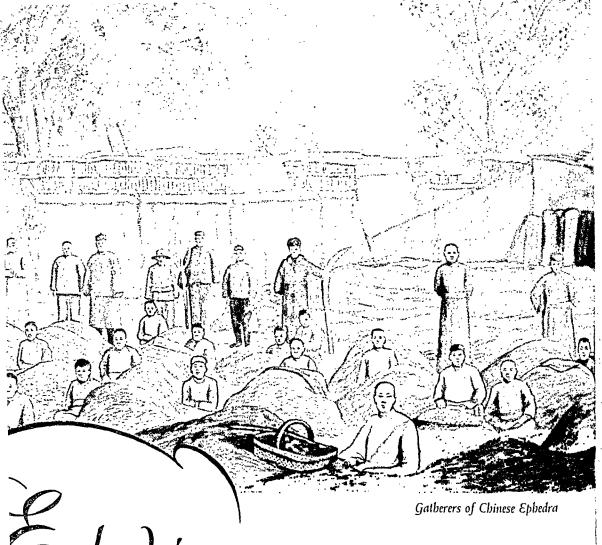
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Makers of INSULIN SOUIBB



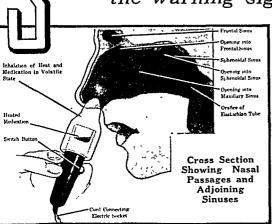
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Thermohale is a new, electrically operated. scientifically designed instrument prescribed by

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Thermohale medication is made from the purest oils, known to every physician. Your own prescription may be used in Thermohale.

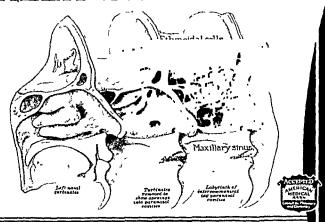
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NASAL CONGESTION is perhaps the most discomforting symptom in the common cold. Relief from this "stuffed-up" feeling, along with freer breathing, can be brought about by the use of the safe, non-irritant, vaso-constrictive action of

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ONE-OUNCE BOTTLES

EMULSION

1/2%--IN COLLAPSIBLE TUBES

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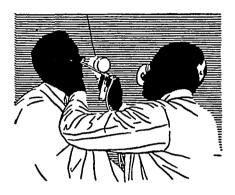


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Symposium on Sympathetic Ophthalmia

INSTRUCTIONAL HOUR Notes on Pathology and Surgical Treatment

BERNARD SAMUELS, M.D., New York City

The subject of this paper is one of great practical importance because on the correct judgment of the surgeon, in cases of injury, the future vision of the patient may depend. It has been known for a long time that if one eye has received a perforating wound occasionally the other eye, which was hitherto sound, may be affected by an inflammation of a malignant nature, leading to atrophy and blindness. Since no other cause for the involvement of the second eye than the injury of the first is found, the disease has come to be called sympathetic ophthalmia. This disease does not occur when the wound in the injured eye heals correctly and when the function of the eye is not interfered with. The disease supervenes in the uninjured eye only when the first eye shows signs of iridocyclitis as a result of traumatism. From clinical observation it is known that not all eyes that suffer from traumatic iridocyclitis excite sympathetic ophthalmia. However, it is realized that the enucleation of the injured eye is the one certain means of insuring the safety of the other. If we observe, after a perforating wound, that the eye becomes soft and atrophic, that the cicatrix on the surface is retracted, that the eye is painful or sensitive to touch, and that the vision is failing, we find in these symptoms an indication for enucleation, because such an eye has the potentiality of producing sympathetic

ophthalmia. One cannot predict positively that it will do so but it may.

In those eyes that have excited inflammation in the fellow eye there is found a peculiar and specific lesion that distinctly differs from that of the familiar traumatic endophthalmitis anatomically and in its consequences. If we place in one group globes that have been removed for fear of producing sympathetic ophthalmia and if in another group we place globes that. have really excited sympathetic ophthalmia and that have been excised in the hope of shortening or curing the disease, we find in the latter group, in addition to the features of common iridocyclitis, a peculiar infiltration in the choroid. In endophthalmitis we are not accustomed to see evidences of irritation in the choroid because this layer is protected by the retina from toxins originating in other structures. Sympathetic ophthalmia is pre-eminently an infiltration in the uveal tract, showing in a singular way no tendency to form exudates on its surface. We must never forget that the infiltration in the ciliary body and iris is always combined with another disease, iridocyclitis due directly to the injury in this region. As a result of the endophthalmitis, which precedes the infiltration, cyclitic membranes on the surfaces of the ciliary body and iris are formed. One looks to the choroid to find the characteristic infiltration developed in its purest form because

From the Department of Surgery, New York Hospital, and the Eno Laboratory, New York Eye and Ear Infirmary, New York. This paper is a summary of remarks made in a demonstration of anatomic preparations before the Section on Ophthalmology and Oto-Laryngology at the Annual Meeting of the Medical Society of the State of New York, Albany, May 14, 1935

the posterior segment of the eye is seldom damaged by the injury so that the infiltration here is not complicated by the

presence of a separate disease.

The infiltration is composed chiefly of lymphocytes, which first appear in and around large veins, destroying their walls and invading and occluding their lumina. The focal accumulation of lymphocytes in the adventitia of the veins is a distinguishing point in sympathetic ophthalmia, even when epithelioid and giant cells are absent. Epithelioid cells, which are larger than lymphocytes, have an oval vesicular nucleus and a protoplasm staining with eosin. They are so-called because they correspond exactly to the elements bearing the same name in tuberculosis. Where epithelioid cells appear in numbers they show a tendency to coalesce, the outlines disappearing so that the protoplasm becomes confluent and the whole is transformed into a giant cell. Epithelioid cells are present in small groups in the midst of broad fields of lymphocytes. In some places the nests are round and in others elongated. In reality it appears that these groups are strands and that it depends on the direction of the section whether they manifest themselves in round or drawn out islands. Epithelioid cells are thought to be derived from a proliferation of the cells in the walls of blood vessels. The entire infiltration takes place in the layer of large blood vessels of the choroid and in the suprachoroidal lamellae. In the latter, in the early stages, solely lymphocytes are found because there are no blood vessels to degenerate. The infiltration develops in the following stages:

1. Stage of lymphocytic infiltration in the walls of the large veins of the uveal tract. The infiltration in the vortex veins often presents a broad, dense lumen of perivasculitis.

2. Stage of the formation of typical nodules with giant cells in the center surrounded by epithelioid cells and lympho-

cytes.

3. Stage of the formation of tumorshaped masses of granulation tissue in the uvea, composed of the above mentioned cells. Tumor-like formations are more apt to be found in the iris than elsewhere, whereas the charoid undergoes a uniform thickening, which may be three or four times as great as the original layer. In excessively developed cases the infiltration of the entire uveal tract may reach such proportions as to occupy almost the entire cavity of the globe, and all of this may take place in the short space of a few weeks.

Singularly the choriocapillaris is free of infiltration. One will always notice a compressed pinkish streak on the internal surface of the choroid, under the pigment epithelium, which contains none of the intensely stained lymphocytes seen in the deeper layers. The pigment epithelium itself may present small moundlike projections on its surface—the so-called foci of Dalen—composed of cellular elements that have wandered through the lamina vitrea and of cells from the pigment epithelium.

Having regard to the other divisions of the uveal tract, in the ciliary body the infiltration is confined to the vascular layer, a nodule in the muscle being a rare exception. No matter how thick and dense the infiltration in the vascular layer may be the unpigmented ciliary epithelium goes uninterruptedly over it, so that the infiltration may be said to be still confined to the uvea. When a search for giant cells is made they are more likely to be seen in the ciliary body than elsewhere. Here and there throughout the uveal tract giant cells containing stroma pigment are sometimes encountered; such cells are believed to have their origin in chromatophores.

In the iris the infiltration, no matter how exuberant, is invariably covered on the corneal side by the intact anterior limiting layer. On the other hand, posteriorly typical nodules break through the disintegrated pigment epithelium and expand on the lens capsule, causing the posterior synechia associated with sympathetic ophthalmia. The sphincter muscle, as in the case of the ciliary muscle, is often identifiable even when all else of the stroma is replaced by the infiltration. The presence of plasma cells and eosinophiles in connection with the characteristic elements of the infiltration in the iris and ciliary body is sometimes mentioned in descriptions, but these cells are in no way essential to the picture of sympathetic ophthalmia; rather they are an expression of an accompanying chronic iritis or cyclitis as a result of the injury.

Prolapsed portions of the uveal tract may reveal the most exuberant type of infiltration. Covered by the conjunctiva and having a grayish blue color such masses simulate staphylomatous areas at the seat of the wound. No detached tag of uveal tissue, wherever it may be, as for instance strands of the perichoroidal lamellae clinging to the sclera when the choroid is separated, or ragged particles of uvea isolated on the surface of the globe near the wound, ever escape the infiltration.

Bearing in mind that the uvea is the primary seat of sympathetic opthalmia, it is interesting to consider its manifestations in other structures of the globe. The sclera, having everywhere uveal tissue as the lining of its internal surface, is many times inflamed to a surprising extent, so much so that in severe cases one is justified in thinking of sympathetic ophthalmia as a chorioscleritis. Long stretches of the lamina fusca may be involved in an internal scleritis, files of lymphocytes separating the bundles. The infiltration appears along the extensions of the uveal tissue that line emissaria, within the lumen of which there may be giant cells and often epithelioid cells are present ensheathing the vessels. Spreading on all sides from the walls of the emissaria files of lymphocytes not infrequently appear in the middle layers of the sclera. Around the external openings of emissaria, sympathetic nodules may develop, in connection with which the outer layers of the sclera may show a lymphocytic infiltration-external scleritis. Typical nodules in the tissues of the intervaginal space and even in the substance of the nerve have been reported by A. Fuchs. Nodules have been identified between the fibers of the inferior oblique, not only at its insertion in the sclera but also at a considerable distance away. It is not possible to say to what extent the orbital tissues may be affected because evisceration is not performed in this disease, but from the frequent involvement of tags of tissue adhering to the globe one gleans that the specific infiltration may be more far reaching than hitherto suspected. The narrow zone of the fibrous tissue just external to the limbus, where the tissue is relatively thin to accommodate the external and internal

sulcus, merits special description on account of its proximity to the root of the iris which is a favorite spot for excessive development of the infiltration. ularly when the angle of the chamber is filled with infiltration this narrow vascular zone of the sclera attracts attention in the sections because of its intensely blue stain. brought about by row after row of lymphocytes packed between the layers of connective tissue, splitting them and even destroying them, and producing a regular dehiscence. One remarks on this evidence of histolysis, and this is the only place that ever shows it in such definite relation to the specific infiltration.

In sympathetic ophthalmia the retina constantly presents a dense and heavy infiltration in the walls of the blood vessels (called sympathetic perivasculitis by I. Meller). A nodule in the retina is one

of the rarest findings.

The structure of the globe that is least affected is the cornea which, in contradistinction to the sclera, is not in contact with uveal tissue but is far removed from it. The aqueous and Descemet's membrane would seem to protect the stroma to a certain extent from whatever viritant substances may go with sympathetic inflammation, or it may be that the corneal lamellae have a natural resistance.

In the sympathizing eye the infiltration is of exactly the same character as that in the exciting eye. One would not anticipate seeing membranes on the surface of the uveal tract in the sympathizing eye because there has been no traumatic iridocyclitis to produce them. The sympa-thizing eye is rarely examined because there is no reason for removing it unless the patient dies from another malady or the eye causes so much pain that he prefers to have it excised. It is seldom that the injured eye preserves any vision, in which case it is not enucleated because the sympathizing eye may become blind and we would be sacrificing the last remnants of vision to the patient,

Clinically the diagnosis of sympathetic ophthalmia is made from the symptoms in the uninjured eye. In the injured eye, symptoms of the traumatic iridocyclitis mask the picture and are sufficient to

account for all that we see.

As a rule sympathetic inflammation supervenes within a few weeks after in-

About two weeks is given as a minimum time. Notwithstanding that the disease may break out many years after an injury the infiltration itself always gives the impression of being a recent The examination of many globes leaves the impression that the infiltration flares up almost simultaneously in all parts of the uvea, and yet the anterior infiltration is usually a little older than the posterior. Thus the anterior segment may be in the third stage and the posterior in the second stage. It is certain that the infiltration starts first in the exciting eye and that in a very short time, shorter than the clinical history would lead one to believe, it begins in the fellow eye. As a proof of this brief interval, many eyes that have excited the disease reveal the specific infiltration in the choroid no further advanced than the first stage when there are only scattered foci of lymphocytes in and about large veins. If the interval were a long one we would conclude that the removal of an injured eye at such an early stage in the development of the infiltration in its choroid would prevent the incidence of the disease in the other eye. Very exceptionally the sound eye becomes inflamed several days after the removal of its fellow. From pathologic experience, now and then an eve shows the charactertistic signs in the choroid in the earliest state and yet the other eye never becomes inflamed. Such a condition is termed "pathologic sympathetic ophthalmia"-it being supposed that by chance the eye was removed before there was time for the disease to spread.

Sympathetic ophthalmia is a pathologic process entirely different from septic endophthalmitis—different both clinically and anatomically. Septic endophthalmitis remains localized in the injured eye, the vision of which it destroys but it produces no complications in the fellow eye. Anatomically the distinction lies in the character of the inflammation. The reaction of the tissues in septic endophthalmitis is an exudative one. The cells migrate from the blood vessels and have a high degree of mobility. They can move quickly and get into the cavities of the eye where they form pus. The granulation tissue which forms in the organization of the exudate is situated on the external

surface of the uvea and not in its stroma. On the other hand the cells of sympathetic inflammation show no disposition to leave the stroma. In septic endophthalmitis the ciliary body and iris are inflamed but not the choroid. In sympathetic ophthalmia, in addition to the inflammation in the ciliary body and iris, we find the choroid infiltrated, without any apparent reason.

Many of the anatomic characteristics of sympathetic ophthalmia are closely related to that group of inflammations called granulation tumors. Such a tumor is a new growth that consists of granulation tissue that has an aggressive power. Granulation tumors have no tendency to transform themselves into cicatricial tissue but rather a pronounced tendency to degeneration. There are principally three diseases that belong to this group—tu-

berculosis, syphilis, and leprosy.

From a purely histologic standpoint the similarity between tuberculous and sympathetic ophthalmia is very strong. The same types of cells compose the infiltration in each disease, although there is a difference in the manner of arrangement and distribution. In sympathetic ophthalmia the infiltration is more uniform in the choroid than in tuberculosis where it is more nodular. In sympathetic ophthalmia the emissaria almost invariably even in the mildest cases show an infiltration; but in tuberculosis this is seen only in very severe cases. The distinguishing feature in the iris is the preference of for the anterior tuberculous nodules layers, leaving the posterior surface free, so that the movements of the iris are but little interfered with. Early and complete posterior synechia characterize sympathetic inflammation. The outstanding difference between the two diseases is the manner in which the infiltration in each behaves toward the other tissues of the Tuberculous infiltration possesses a histolytic action by which it destroys the densest structures. If it starts in the iris it will gradually fill the anterior chamber and on coming in contact with the cornea and sclera it will melt them, so to speak, producing an excavation in them of the same size and shape as the tumor itself. This destructive malignancy is not noticed in sympathetic infiltration which only extends beyond the uvea along preformed channels, as the emissaria, lined by uveal

tissue. Cascation typifies all tuberculous infiltrations, and while it is not often seen in sympathetic infiltration, it is well to remember that focal necrosis does occur, There is no doubt that the infiltration in tuberculosis is an expression of reaction on the part of the uvea to acid fast bacilli but no micro-organisms are demonstrable in sympathetic infiltration. It is true that J. Meller and his school believe that the disease is caused by the tubercle bacillus. They report success in isolating the bacillus in the exciting eye and in the blood of patients afflicted with sympathetic ophthalmia. The question is open to controversy.

The pathologic anatomy explains the intractability of sympathetic ophthalmia and its utter hopelessness when the infiltration is fully developed. As a rule it is useless to attempt treatment of the exciting eye because of its soft and atrophic condition. The infiltration in the sympathizing eye may cause an increase in tension, especially in the sympathizing eye, because of the enormously thickened root of the iris and the complete posterior synechia. Great difficulties arise in any endeavor to reduce the tension. Atropine, if it could act in the presence of so much infiltration, would increase the tension by bringing more tissue into the angle, and pilocarpine would make the synechia more complete at the pupil. Surgically an iridectomy is out of the question; neither may a cyclodialysis be made because the ciliary body is often highly infiltrated and hemorrhages would take place from the rupture of engorged vessels. No form of sclerotomy is permissible since scleritis is

a common complication of sympathetic ophthalmia. From the surgical standpoint the cornea is the only field of the globe that is available for operation because of its freedom from inflammation, Repeated paracenteses are of great value in the relief of the secondary glaucoma in the sympathizing eye. They should be made well away from the inflamed and dehiscent zone at the limbus.

Sympathetic inflammation is remarkable above all else for its chronicity. It is only after years that the infiltrated areas in the uvea are converted into membranes. No attempt should ever be made at cataract extraction or at making openings in the iris unless there is a definite reason and only then provided that the eye has been quiescent for a very long period. The reaction does not set in at once after an operation but gradually a plastic exudate is poured out that bridges over any artificial opening that has been made for optical purposes.

Finally, in the matter of preventive measures, an evisceration may be ineffectual because it is not possible to remove the uveal extensions in the emissaria. It is the practice in the Vienna school to excise all phthisical globes after panophthalmitis because pathologic experience teaches that even in these some uveal tissue escapes destruction. In enucleation care should be taken to excise a long strip of the nerve and with it tissues adjoining the posterior segment of the globe. One can never tell how far away from the sclera the specific infiltration may be found.

57 West 57th Street.

SYMPATHETIC OPHTHALMIA AND ITS COMPLICATIONS Surgical Treatment

JOHN F. GIPNER, M.D., F.A.C.S., Rochester

Prophylactic Surgery

The prophylactic removal of severely wounded, hopelessly blinded eyes is the only surgical procedure which can be considered under the above title that gives uniformly happy results, All operations on eyes with sympathetic disease may yield discouraging results because organized exudate tends to obstruct and undo the efforts of the surgeon directed towards restoration of vision.

Every eye which has been severely lacerated or otherwise wounded through the ciliary body should be removed, especially if the patient is a child. If, after consultation with a fellow ophthalmic surgeon, removal of the eye is not deemed necessary, the surgeon caring for the patient becomes responsible for a prolonged series of difficult slit-lamp observations of both eyes of the patient, until the danger of sympathetic disease has passed.

In eyes where the cornea is so damaged that there is no hope for useful vision, even though the ciliary body has escaped injury, it is usually prudent to remove the eye and save the patient a prolonged convalescence and the inevitable phthisis bulbi which demands subsequent enuclea-

If the prophylactic surgery is performed immediately, before infection has developed, evisceration may be performed in lieu of enucleation. I prefer evisceration with an elliptical sclerocorneal excision. The whole cornea and small lateral triangles of sclera are excised. After thoroughly removing the ocular contents, carefully curetting out all pigment around the emissary vessels, the scleral margins of the wound are brought together by three or four plain catgut sutures. Tenon's capsule and the conjunctiva are united by interrupted, horizontally placed silk sutures. Dr. Sandford Gifford recommends evisceration without resection of cornea according to the technic developed by his father. I have had no experience with this method.

When enucleation is preferred for the prophylactic operation, simple enucleation is always the safest procedure. If the operation is performed immediately after the injury and the danger of infection is very slight, enucleation with implantation of fat, bone pith, cartilege, glass or gold ball into Tenon's space may be done. In this operation, after simple enucleation, the implant is inserted into Tenon's space, the recti muscles are sutured over the implant and Tenon's capsule and the conjunctiva are united. Silk or ten-day triple A chromic catgut may be used for the buried sutures. Mules' operation, or opticociliary neurectomy with glass or gold ball implantation into the scleral envelop is not recommended as it is not without danger of sympathetic disease even in uninfected eyes.

Removal of the Exciting Eye

Having elected to wait and watch the progress of the case, one should be prepared to enucleate the exciting eye at the first signs of sympathetic inflammation in the sympathizing eye as determined biomicroscopically. If one does not have access to a slit lamp, the patient should be referred to someone who can and will

make frequent conscientious slit lamp examinations. In this way some eyes may be saved which otherwise might better be enucleated.

When the first early positive biomicroscopic signs of sympathetic disease are seen, immediate enucleation of the exciting eye is imperative. Evisceration must not be performed now because the disease in the exciting eye is not only in the uvea, but also involves the sclera by way of the emissary vessels and nerves. Simple enucleation is again the safest procedure, although one may implant into Tenon's space in selected cases, where, in the surgeon's judgment, only slight or no extension of the disease into the sclera has occurred.

Should the patient present himself in the stage of fully developed sympathetic disease, it may be advisable not to enucleate the exciting eye if useful vision is present. Once sympathetic disease is established, sacrifice of the exciting eye has little or no effect on the course of the disease in the sympathizing eye.

All of these operations may be performed under either local or general anesthesia. Two per cent novocaine combined with preoperative sedation with sodium pento-barbital, gas ether, rectal or intravenous avertin, or intravenous Evipal may be employed. Evipal gives immediate complete anesthesia for fifteen to twenty minutes, which is long enough for any of the procedures mentioned.

Surgical Relief of Secondary Glaucoma

Sympathetic uveitis runs the same course in both the exciting and the sympathizing eye. Glaucoma may result from extensive posterior synechiae which develop even with the pupil widely dilated. If the intraocular pressure rises acutely, or if it rises and stays persistently above twenty-eight millimeters (Schiotz) for a week or more without signs of regression, a broad base iridectomy should be made. This may be difficult if the iris is necrotic and friable. Several attempts may be necessary to pull out and resect a sufficient quantity of iris base to open up the drainage angle of the anterior chamber. If seclusion of the pupil with iris bombe is present, transfixation of the iris may be preferred to iridectomy, as a temporary

measure at least when the slightest surgical trauma is desired.

To transfix the iris, a Graefe knife is pushed into the anterior chamber one millimeter to the inner side of the temporal border of the cornea, passing through and through the iris, over the pupil and through and through the iris and out through the cornea at a corresponding point on the other side. When the knife is withdrawn, four openings are made in the iris which may remain open and lower the intraocular pressure, or they may become closed over by organizing exudate. Iridectomy should then be done as there is less likelihood for this larger opening at the base of the iris to become sealed over with exudate. Because of the rich production of organizing exudate in sympathetic ophthalmia, filtration operations are not useful in combating this disease. However, a La Grange sclerectomy may occasionally be combined with the iridectomy to produce a more effective control of the glaucoma.

Cyclodialysis may also give temporary relief in certain cases where iridectomy has failed, but it is of little value for the production of permanent reduction of intraocular pressure in these cases.

Extraction of Cataracta Complicata

The cataract which develops in sympathetic disease should not be removed until all signs of active inflammation have subsided. This will be many months or more than a year after the onset of the disease.

If the iris adhesions are minimal, they are broken down by passing a narrow, thin, flat spatula between the iris and lens through the iridectomy openings, and sweeping the spatula completely around under the iris. In doing this the line of cleavage may occur below the anterior lens capsule rather than above it. If this happens, the thickened anterior capsule can be excised by two converging cuts with straight scissors or pince-ciseaux inserted into the anterior chamber. After having made sure that the capsule opening is adequate with a cystotome, the lens is removed by expressing it as in the regular capsulotomy cataract operation.

If the iris can be separated from the lens capsule, capsulotomy with capsule forceps or cystotome is performed and the lens is extracted as in an uncomplicated case.

When the organized exudate uniting the iris and anterior capsule is very thick, the Wenzel-Wecker operation may be performed. The incision is made with a Graefe knife, but on entering the anterior chamber, the iris is pierced with the point of the blade. The knife is passed behind the iris through the lens capsule to the opposite side and the counter-puncture through the iris and cornea is made. The incision is completed with sawing movements, making a flap in the adherent iris and capsule as well as in the cornea, If the opening in the capsule is large enough, the lens is expressed with a lens hook or Daviel spoon. The flap of iris is then excised by two converging incisions with scissors or pince-ciseaux.

The intracapsular extraction operations can not be performed in late sympathetic disease because the organized exudate thickens, reinforces and strengthens the fibres of the zonular ligament so that they can not be ruptured without excessive trauma.

Procedures to Reopen Pupil

If the injury to the exciting eye has damaged the lens, partial or complete absorption of the lens results, depending upon the amount of physiological sclerosis present. There then remains a thin membraneous cataract adherent to the iris in young patients, or a dense membranous cataract in older patients. Membranous after-cataract also remains after a cataract has been extracted surgically in these cases.

The Ziegler discission is ideal for most thin membranous cataracts with adherent iris. The Ziegler knife-needle is entered at the limbus above with the cutting edge parallel to the margin of the cornea. It is pushed downward to a point three millimeters from the limbus, and three millimeters laterally from the vertical meridian where it is rotated so that the cutting edge is toward the iris. The point is quickly thrust through the iris and an incision is made with sawing movements obliquely upward to a point near the entrance of the knife-needle, avoiding a loss of aqueous. The knife is raised above the level of the iris, rotated on the flat and swung across the anterior chamber to a

point which lies three millimeters from the limbus and four millimeters laterally from the vertical meridian of the cornea. The point of the knife is now quickly thrust through the iris and with sawing movements the incision is carried upward to meet the upper end of the first incision; a V-shaped iridocapsulotomy results, with apex upward. The Ziegler discission knife will not cut thick membranes, and in such cases should be replaced by Wheeler's discission knife, which, because of its weight and length of blade, can be made to cut thicker membranes.

Although I prefer the Ziegler operation because of the slight trauma to the eye and the smallness of the corneal wound which retains fluid vitreous, the De Wecker pince-ciseaux entered through a keratome incision may be used to make a simple iridocapsulotomy, iridotomy or capsulotomy depending on the conditions which are present. A V-shaped incision can also be made with pince-ciseaux through the corneal keratome incision. Care must be taken by the assistant to raise the speculum off the eyeball and so avoid excessive loss of fluid vitreous.

In cases where the incised membrane and iris operated by the above methods fails to gape, an operation to remove a portion of the membrane must be tried. Through a keratome corneal incision a Schnaudigel keratome-punch is thrust through the membrane and a portion is punched out and removed.

De Wecker devised iritoectomy and iritodialysis for these cases. Iritoectomy with the keratome is performed in the upper corneal limbus. The corneal incision should be six to eight millimeters in length. After the aqueous has flowed off, the keratome is pushed through the membrane making an incision equal in length to that in the cornea. With the pince-ciseaux, two converging cuts are made in the iris and membrane so that a triangular piece is excised, and removed with iris forceps. The apex of the triangle should lie somewhat below the center of the cornea.

When iritoectomy is performed with the Graefe knife, an incision is made with cutting edge downward in the lower third of the cornea. The point of the knife is pushed through the cornea and the iris

membrane, is carried over behind the iris, and the counter puncture is made through the iris and cornea. When the section is completed there is a large flap in the cornea and in the membrane. A triangular flap of the membrane is now excised and removed as in the preceeding operation.

Iritodialysis is indicated in cases where the pupil is obstructed while the iris is pushed forward and is partly adherent to the posterior surface of the cornea. An incision, five or six millimeters in length is made with a keratome through the cornea where some anterior chamber remains. The aqueous is allowed to escape and then the keratome is plunged through the iris membrane making a similar cut. Two incisions are now made with pinceciseaux from the two ends of the incision in the membrane diverging downward to the iris base. This square flap of iris is grasped by iris forceps and is torn from its base at the sclera and removed.

All of these pupil restoring operations are accompanied by bleeding from the iris and consequent reaction. Even though the opening in the membrane stays open, the sight in these eyes is practically always impaired because of the degeneration of the vitreous, retina, and optic nerve secondary to the severe uveitis.

Conclusion

In conclusion, I repeat that the most gratifying results in the surgery of sympathetic ophthalmia are not obtained from eyes with sympathetic disease, but in eyes removed as prophylaxis against the disease. The exciting eye must be removed at the first biomicroscopic signs of sympathetic disease in the sympathizing eye. If the disease is well advanced when first seen, it may be prudent not to remove the exciting eye.

The key note of successful surgery for the complications of sympathetic ophthalmia lies in gentle manipulation and in cutting the iris and the adherent membrane with sharp instruments, without dragging on the ciliary processes.

The drainage angle should be kept open by surgical procedures if secondary glaucoma develops which cannot be con-

trolled medically.

Cataracta complicata from sympathetic ophthalmia should not be removed until all signs of inflammation have subsided.

To reopen a pupil after cataract extraction or traumatic absorption of the lens, the Ziegler discission is best if the membrane is thin. If the membrane is thick, the various operations of De Wecker may be tried or the punch operation may be used to advantage.

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SYMPATHETIC UVEITIS

Results of Treatment with Diphtheria Antitoxin in 35 Consecutive Cases

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Eight years ago the senior writer brought forward as effective treatment for sympathetic uveitis the use of frequent subcutaneous or intramuscular injections of diphtheria antitoxin in large doses. The considerations that led to the employment of this treatment were:

First, that horses were not subject to sympathetic uveitis and hence their scrum might be antagonistic to the disease; second, that the serum of a horse immunized to diphtheria toxin probably contained enhanced nonspecific factors of immunity; third, that it was remotely possible that the antitoxin itself might be antagonistic to the disease; fourth, that the serum might act as an antianaphylactic in case the anaphylactic theory of the disease were true.

Since then this treatment has been carried out in thirty-one additional cases, most of them under the personal supervision of the senior writer. Three of these cases are excluded from consideration because they are of no significance as to the value of the treatment, since vision was reduced by the disease to light perception before the antitoxin was first administered. In none of these three cases was the exciting eye examined microscopically.

The diphtheria antitoxin was supplied by the Massachusetts State Board of Health, and in each case an attempt was made to follow the procedure outlined in the communication referred to:

The exciting eye is removed only if it is so badly injured that there is no reasonable chance that it will recover useful vision. The patient is tested for hypersensi-

tiveness to antitoxin, by injecting one drop intradermally. If there is no reaction within thirty minutes, the test is negative. If negative, 20,000 units of diphtheria antitoxin are heated to body temperature and injected subcutaneously or intramuscularly, preferably into the buttocks. If the test is positive, the patient is desensitized by injecting the antitoxin at intervals of fifteen minutes in divided doses, .1 c.c., .2 c.c., .5 c.c., 1 c.c., 1.5 c.c., 2 c.c., 2.5 c.c., and then the remainder of the 20,000 units. In the case of children the dose is reduced in proportion to body weight. The same dose is given daily for one week. If the case is an early one and the ocular congestion has subsided within this time, the injections are discontinued for one week, and then given at weekly intervals for two or three weeks. If the case is an advanced one, the daily injections are continued until marked improvement has taken place or the patient has developed severe symptoms of anaphylaxis. They are then given at weekly intervals, each time in divided doses. In cases with marked congestion, sodium salicylate is given in increasing doses but not to the limit of toleration. Locally, atropine is employed in the usual manner. If the pupil does not dilate fully, or if there is increase in tension, daily subconjunctival injections of adrenalin are given. If the tension remains over 28 mm. (Souter), iridectomy is done as soon as the eye otherwise shows marked improvement. If there is a pupillary membrane which reduces vision too greatly, and the eye has remained quiet for three months or longer, the lens is removed, the patient being kept under the influence of antitoxin by daily injections before and after operation.2

Including the previous seven cases, we

	64				F. H	. VE	RHO	Œ	FF A	1N1	D S	5. R.	IRV	NE				IN.	Y. S	ate .	J. M.	
ric Uverris—	Remarks No.	Cat. ext. sympathizing eye 1½ years 2	Poor vision due to senile cataract 4 Cat. ext. sympathizing eye 6 months 5	Vision fell to 3/200. T. (NS) 57, then 9 immoved vision now due to senile	cafaract. Tension normal. Cat. ext. sympathizing eye 1 year 11	Poor vision due to senile cataract 12 Iris specimen examined 13	Secondary glaucoma relieved by 15	Under treatment	Not treated with antitoxin until 17 present recurrence sight years after	Poor vision due to acute glaucoma 11 18	Secondary glaucoma	Secondary glaucoma Poor vision due to complicated 21 cotament and blocked mini	Iris specimen 24	Iris specimen primary glaucoma O.U. 25	Primary glaucoma O.U. still under 26	Illiterate chart	Acute glaucoma 15 days after onset 28 Tridertomy O.S.	Specimen lost 30 Oneration O. U. chronic glaucoma 31		Still under treatment K.P. persist Eyesquietafter I month not followed 33	O.U. quiet after 3 months not seen 34 later. Restoration of vision by	op. not excluded. Secondary glaucoma, operation re- 35 fused.
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now have thirty-five consecutive cases upon which to base conclusions as to the effectiveness of the treatment. This series of cases is actually small, but is large relative to the frequency of the disease, and covers a period of about eleven years. The important facts regarding these cases are given in the accompanying table cases are not grouped in chronological order In twenty five cases which we shall term the "proved" cases, the diagnosis was confirmed by microscopic examination of the enucleated eye (22 cases) or a piece of iris obtained by iridectomy (3) cases) In seventeen of these proved cases useful vision resulted-in eleven it was 20/30 or better In Case 4 the resulting vision was only 20/100, in Case 9, 20/70, and in Case 12, 20/50, but in each of these cases this was not due to the disease but to semile cataract. In Case 15, one of the first cases in which the treatment was used, the resulting vision was only 20/70, but according to our present views the patient was given insufficient treatment In only five of these successful cases did the microscopic examination show that the sympathogenic uveitis was severe in the exciting eye. This fact indicates that in most of the successful cases the treatment was begun early, but affords no evidence that the uvertis would not have be come severe if iintreated

Of the eight proved cases in which the final vision was low or nil, vision was reduced to 4/200 or less in three before the treatment was begun In Case 18, after all inflammatory signs had subsided, the vision was 20/40 Then an attack of acute glaucoma reduced the vision to counting fingers The lens had become slightly cataractous and was removed without any recurrence of the uveitis A clear pupil was obtained, but the vision was only 4/200, evidently due to the attack of glaucoma In spite of this result, the bene ficial effect of the treatment in this case seemed obvious Nevertheless, we have not included it among the successful cases because the acute glaucoma probably resulted from the preceding uveitis

In five of the eight unsuccessful cases, there were recorded no reactions to the injections. This may explain the failure of the treatment. In seven of the unsuccessful cases the microscopic examination showed severe involvement of the exciting

eye, additional evidence that the sympathizing eye was severely involved at the beginning of treatment. In the other unsuccessful case the microscopic findings also indicated severe involvement considering the short time (one week) that symptoms had been manifest.

Of the ten cases in which the diagnosis was based upon the clinical evidence alone, excellent vision resulted in seven But in two of these, (Cases 26 and 32) in which vision is 20/20, the patients are still under treatment. In one case (33) of the severe plastic type, in which vision was reduced to 4/200 at the beginning of treatment, the inflammation subsided in one month with vision no worse, and the patient was then discharged. In two unproved cases (34 and 35) the treatment apparently failed, but in the latter the chief cause of loss of vision was secondary glaucona for which the patient refused operation and any further treatment Thus, excluding the two cases in which the patients are still under treatment, and the case followed only one month after the onset, the treatment was effective in five out of seven unproved cases Based upon the evidence of the proved cases alone, or upon that of the whole series, we can say that when antitoxin is begun at an early stage of the disease satisfactory vision will be obtained in at least two thirds of all cases of sympathetic uveitis. If we exclude three un successful cases (20, 21, and 25) in which the sympathizing eye was severely involved at the beginning of treatment, also Case 35 in which treatment was discontinued against advice, and include all others, we can say that satisfactory vision will be obtained in eighty per cent of all cases when the treatment is begun early

It seems probable that an anaphylactic reaction is advantageous if not essential to the effectiveness of the treatment, for recognizable reactions occurred in almost all the successful cases. Such reactions, however, do not necessarily ensure success, since of the ten unsuccessful cases in the whole series, they occurred in five, in three of which vision was fairly good at the outset. It is possible also that desen sitization of the patient, after becoming sensitized, was of importance. For whether the disease is due to allergy alone, or to infection, allergy may play

an important part in it, and it is possible that antiallergic factors may be of value even if not specific for the disease in question.

Exact notes as to the anaphylactic symptoms when the latter were slight were unfortunately not made in all of the cases. In one case (12) deltoid paralysis in one arm occurred which disappeared in about a year. Otherwise there were no serious effects of the treatment. One patient (Case 18) died of pernicious anemia $4\frac{1}{2}$ years after the last injection. This undoubtedly was simply a coincidence, since none of the other patients developed anemia. One patient (Case 25) had slight anaphylactic shock, which was relieved by injections of adrenalin. This no doubt could have been avoided by proper desensitization. Febrile reaction, and urticaria developed after about the fifth or seventh daily injection. The highest temperature was 104°. In a few patients there was arthritis for a few days. These symptoms were unpleasant but not alarming.

In seven cases iridectomy or combined cataract extraction was performed during the course of treatment or soon after subsidence of the inflammation, without causing exacerbation or recurrence of the inflammation. In three cases, however, (22, 23, and 24) operative interference probably contributed to the unsuccessful results. These three cases seem to indicate that unless the patient can be made sensitive to the antitoxin, and the treatment is obviously beneficial, no intraocular operation should be performed.

In this disease a distinction between exacerbations and recurrences is difficult to make. We know that the disease may become active again after many years (Case 17), suggesting that in many cases the lesions have never entirely healed in spite of absence of all clinical signs. From this point of view all clinical recurrences in this disease are really exacerbations. In our series, in most of the successful cases there were slight exacerbations before all inflammatory signs disappeared. In only one case (16) however, with the possible exception of two others, did inflammatory signs recur after the disease had apparently completely subsided under the treatment.

Case 16 is worthy of special considera-

tion because in spite of its mildness, slight exacerbations occurred eight times within eight years, and because of the histological picture in the exciting eye removed four years after the onset of the disease. The right eye sustained a perforating wound of the cornea with prolapse of the iris. Nine weeks later, the left eye showed slight ciliary congestion, and slight posterior synechia, but the vision was 20/20. The patient was given seven injections of his own whole blood, about fifteen c.c. each, over a period of about five weeks. At the end of this treatment, precipitates and Koeppe nodules persisted, and vision was 20/30, but there was no congestion. Three months after the onset, blurring of the optic disc was noted and the antitoxin treatment was begun. The posterior corneal precipitates became much less and the patient was discharged with vision of 20/20. Two months later an iridectomy was performed upon the injured eye without causing any exacerbation. The patient's father then learned to recognize the presence of precipitates on the cornea by viewing the eye in direct sunlight, and brought the patient to the hospital whenever he noted them. Each attack was treated with antitoxin. About four months after the first injection of antitoxin the patient developed asthmatic attacks at night. Four years after the onset of the disease the exciting eye, although it still had some vision, was removed in the hope of checking the exacerbations in the other After this there was an exacerbation about a year later, with vision reduced temporarily to 20/30. Recently after an interval of two years there was another exacerbation which through neglect was allowed to progress for four weeks without treatment. The iris had become tied down, there was congestion and abundant precipitates on the cornea, and the vision was reduced to 20/50. It was found that the patient had become insensitive to horse serum. Treatment was given, the patient again became sensitive, and the attack is subsiding, vision now being 20/20.

Microscopic examination of the eye removed four years after the onset showed a notable condition, namely typical foci of sympathetic uveitis with epithelioid and giant cells scattered throughout the choroid, but the interesting feature was that these foci were very small, and had not damaged the choroid sufficiently to affect vision. In fact the picture simulated that of an early sympathogenic uveitis. So far as we know, such an observation has not hitherto been made. Assuming that lesions of the same kind exist in the other eye, it is readily understandable why the vision of this eye has remained so good,

Case 32, one of the unproved cases,* promises to be similar to the foregoing. After the first treatment with antitoxin there was prompt subsidence of congestion in the sympathizing eye. There have been no posterior synechiae, and the vision has remained 20/20, but posterior corneal precipitates have persisted up to the present time, a period of nine months. In the exciting eye, slight congestion at the site of the wound and numerous precipitates have also persisted. The patient is very sensitive to horse serum.

To ascertain certainly the value of diphtheria antitoxin in the treatment of sympathetic uveitis it is necessary to know the final results in a series of proved cases in which this treatment has not been employed. In the literature we have been unable to obtain a series of cases suitable for comparison with ours. The cases either have been selected, or the final results are not recorded, or the diagnoses have not been confirmed by microscopic examination in number. Post3 has recently reported a series of cases in which the diagnoses were made microscopically. Various methods of treatment, not including the use of diphtheria antifoxin, were employed, and useful vision resulted in fifty-four per cent of twenty-four cases. However, Post does not state how long the patients were followed and gives no details by means of which we can estimate the results with sufficient accuracy. It is certainly difficult to believe that under ordinary treatment useful vision will be ultimately preserved in more than one-third of all cases of sympathetic uveitis, and we are convinced that at present the use of diphtheria antitoxin offers by far the best chance for success in the treatment of this disease.

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ALLERGY IN ITS RELATION TO SYMPATHETIC OPHTHALMIA

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The purpose of this paper is to collect and present the existing evidence that allergy is a factor in the etiology of sympathetic ophthalmia. It is not my function to present or attack other theories concerning the actual cause of this disease, and only briefly need such other theories be mentioned that a general picture may be had of the conflicting viewpoints.

There are at present four widely different ideas on the etiology of sympathetic ophthalmia.

The first of these is that the disease is caused by some unknown and undiscovered organism with a specific predilection for uveal tissue. This organism is assumed to

gain entrance to the exciting eye at the time of the penetrating wound, and later through the blood stream or along the optic pathways to reach the second eye where it produces the characteristic clinical and pathologic picture. At one time or another the isolation of such organisms has been reported, but further investigations have not confirmed these reports. Samuels1 as a result of his studies on the distribution of the pathologic process throughout the uvea, supports the idea of the bacterial etiology of sympathetic ophthalmia, and believes the infecting bacteria gain entry at the site of the penetrating wound of the eye. However, the most painstaking and extensive bacteriologic investigations of both the exciting

References

^{*}Since this was written, two epithelial cysts that had developed in the anterior chamber of the exciting eye, and also a considerable amount of iris tissue, were removed. Microscopic examination shows typical foci of sympathogenic uveitis in the iris. The case, therefore, is now a "proved case,

and sympathizing eyes have been almost uniformly negative, and there is today no positive evidence that sympathetic ophthalmia is caused by bacterium.

The second idea is that sympathetic ophthalmia may be caused by a filterable virus. von Szily² was the first to investigate this question. That lesions may be produced in the eye by inoculation with herpetic and other filterable viruses is unquestioned, and undoubtedly these experimental lesions bear some resemblance to the pathologic picture of sympathetic ophthalmia. The crucial point, however, is: Can a filterable virus be isolated from either exciting or sympathizing eyes which will produce the characteristic or suggestive picture on reinoculation? Here the experiments are extensive, Gifford and Lucic,³ Leser,⁴ Marchesani,⁵ Undelt,⁶ and others having performed this experiment with different variations. The results have as a rule been negative, or, when suggestive, open to serious question by the investigators themselves. All that can be said now is that the idea is stimulating and suggestive, but barren of indication or positive proof.

The third theory is more specific. In its essence it expresses the idea that sympathetic ophthalmia is a tuberculous or tuberculotoxic disease. The idea originated in the close resemblance in the pathologic picture of sympathetic ophthalmia and ocular tuberculosis. It must, however, be remembered that Fuchs and other pathologists have pointed out definite differences. This theory has been supported by the investigations of Guillery,7 who inserted semipermeable capsules containing living tubercle bacilli between the ciliary body and sclera of the eyes of rabbits. The tuberculotoxin diffusing out from these capsules produced disease first in the inoculated eye and later in the second eye-lesions which Guillery believed to be identical with sympathetic ophthalmia. While these experiments found partial confirmation in the work of Kolen,8 Guillery's conclusions were contradicted by Poos and Sartorius,9 Meesman and Volmer,10 Marchesani,11 Kiyosawa,12 and others. Further support to the tuberculous etiology of sympathetic ophthalmia was given by the more recent studies of Meller.13 By means of the Lowenstein technic, he isolated tubercle bacilli from an exciting eye and from the blood stream of patients with sympathetic ophthalmia. On these findings, which Meller confirmed in several reported experiments, he bases his belief that sympathetic ophthalmia is essentially a tuberculous disease. For the moment giving credence to the reliability of the Lowenstein technic and Meller's reported findings, the immediate question is: How do these facts explain sympathetic ophthalmia?

His explanation for the disease in the exciting eye is quite logical. The wound in the exciting eye, with consequent opening of the blood vessels, precipitates the localization of tubercle bacilli in the injured eye. These bacilli then produce the characteristic picture of sympathetic ophthalmia in the exciting eye, which in Meller's opinion is really a proliferating tuberculous uveitis. Meller's¹⁴ explanation for the outbreak of the disease in the second eye is not so clear. He speaks of the "influence exerted upon sensitivity by the decomposition of tissue." of the fact that proliferating cell growths may break in the choroidal veins and cause new deposits of germs, and of the possible biological affinity of the tubercle bacilli for uveal tissue, due to their growth in the injured eye. Lowenstein¹⁵ speaks of this elective organotropism of tubercle bacilli with a little doubt, but emphasizes the fact that tuberculosis of one kidney apparently predisposes the second kidney to similar disease. He notes this same fact in bone tuberculosis. He suggests that the degenerating cells at the site of the original metastasis (i.e. the exciting eye) become foreign bodies and act as antigens. The absorption of these highly specific antibodies, "choroidal resorbins," injure the second eye in such manner that when the tubercle bacilli circulating in the blood stream finally reach this ground prepared by the resorbins, they are able to germinate, and thus in the sympathizing eye produce the picture of sympathetic ophthalmia.

Meller's views have met with both support and criticism. They have been supported by Purtscher,16 Sallmann,17 Nagayama,18 and others. They have likewise been severely criticized by numerous investigators. Tess¹⁰ is frankly skeptical of the dependability of the entire Lowenstein technic. Experiments by de Andrade²⁰ on the influence of ocular injuries on the localization of circulating tubercle bacilli in the eye are certainly not convincing. Nagayama was unable to isolate tubercle bacilli from an enucleated exciting eye. Riehm²¹ seriously questions and challenges the entire assumption. von Hippel22 has carefully studied the question, using the Lowenstein technic for a period of two and a half years. His careful analysis does not support Meller's views. For example, the blood of eleven patients with penetrating wounds of the uveal tract was examined by the Lowenstein technic. Eight cultures were negative and three positive. None of the three positive patients developed sympathetic ophthalmia. Gilbert,23

Krasso,24 and Raverdino25 have also criticized Meller's views adversely.

Thus stands the situation of sympathetic ophthalmia as a tuberculotoxic or tuberculous disease. Guillery's experiments are interesting, but it does not appear that he was dealing with a true experimental sympathetic ophthalmia. Meller's conviction that sympathetic ophthalmia is a tuberculous disease must be judged first on the reliability of the Lowenstein technic. This cannot yet be fully accepted. Even if true, to explain the localization of the tubercle bacilli in the sympathizing eye, the proponents of this theory must assume some other predisposing influence. To supply this gap, they fall back on the assumption of an allergic factor, or at least something closely akin to it.

The fourth idea is that allergy is concerned in the etiology of the disease. This idea first found expression in 1910 when the tremendous importance of allergy and immunity in the causation of disease was gradually being realized. This theory commanded attention because it explained the variable incubation period between the injury to the exciting eve and the outbreak of the disease in the sympathizing eye, and likewise explained the uniformly negative bacteriologic investigations. The theory was first advanced by Elschnig,26 and has been modified by various later investigators. The essence of this theory is that the original penetrating wound allows the absorption of some antigen which produces a sensitization of the injured eye, and later of the sympathizing eye. Sympathetic ophthalmia may be the result of an allergic intoxication from further absorption of the same antigen, or such sensitization and intoxication may permit some unknown, possibly quite unspecific, factor to produce the characteristic clinical and pathologic picture of the disease. Elsching originally believed uveal pigment to be the protein responsible for such sensitization and intoxication, and presented certain experimental evidence to support this view. On the other hand, Marchesani27 apparently believes that nonspecific bacterial protein absorbed from the eye produces a paired-organ sensitivity of the two eyes, and not in other tissues. This developing sensitivity in the second eye makes possible the localization of the bacterium in the second eye. Riehm²⁹ reported experiments indicating that foreign protein absorbed from one eye produces an elective sensitivity of the second eye, and believes that similar organs with a common trophonervous influence are a closed entity with a common inflammatory reaction, which should be designated as elective sensitization, rather than sympathetic disease. On this basis he argues that sympathetic ophthalmia may be due to various etiological factors, acting through elective sensitization in this closed entity of paired organs. Other authors have expressed somewhat similar opinions—variations of the allergic theory.

With these latter experiments and views I have had no experience. If uveal pigment, acting as a foreign protein, can produce a sensitization of the second eye, it appears quite probable that other foreign proteins may do likewise. Yet the idea of a "closed entity" and "elective sensitization" in the immunological sense is difficult to follow, and the experiments along these lines and the conclusions drawn from them appear open to obvious criticism. However, the idea that a native tissue protein, such as uveal pigment, may produce sensitization is open to immediate criticism, assuming as it does the "Horror Autotoxicus," stressed years ago by Ehrlich. Such an idea must be submitted to rigid scrutiny, and the evidence in favor of it thoroughly investigated and examined, before it can be given place and recognition in modern medicine.

What is the evidence in favor of allergy to uveal pigment being concerned in the etiology of sympathetic ophthalmia? To my mind the evidence may be arranged under three headings—experimental, clinical, and pathological. These three phases of the problem it is the purpose of this paper to sum-

marize and report.

Experimental Evidence

Elschnig's original theory assumed that sympathetic ophthalmia was an anaphylactic phenomenon produced through sensitization of the organism, especially the fellow eye, by absorption of the disintegrating uveal tissue in the exciting eye. Further absorption, after sensitization had taken place, produced intoxication, manifested in the second eye as sympathetic ophthalmia—a mechanism similar to that assumed by von Pirquet to explain serum sickness.

To give the semblance of plausibility to such a theory, it must be demonstrated that uveal tissue possesses antigenic properties in the host, and it was on this point that Elschnig's original researches centered.²⁰ Different series of rabbits were immunized by the repeated injection of foreign uveal tissue, of homologous (rabbits) uveal tissue, and finally of uveal pigment, isolated from the uveal tract, purified by precipitation with ammonium sulphate and repeatedly washed. The serums of these

animals were then examined in the complement fixation reaction against all the various antigens used for immunization, and also against antigens of liver and kidney tissue obtained from animals of the same species whence the uveal tissue had been derived. By these experiments Elschnig determined the immunological properties of uveal tissue and uveal pigment, as shown by complement fixation. He found that uveal tissue was capable of acting as an antigen, not only in other species of animals, but also in the same species from which the uveal tissue had been derived, that it was organ-specific in its reactions and not species-specific, and that the pigment of the uveal tract was the constituent responsible for these strange properties. To express it less technically, uveal pigment is a similar protein in all species of animals. Immunologically it differs from the other body protein and is capable of acting as a foreign protein in animals of the same species. These findings were confirmed by Weichardt and Kummel,30 who used the epiphanin reaction. They were questioned by Rados,31 Fuchs and Meller,32 and von Szily,33 who attacked the problem from a different approach—chiefly by anaphylactic experiments in guinea pigs. However, on the basis of this fundamental observation, Elschnig based his original anaphylactic theory of the etiology of sympathetic ophthalmia.

These complement fixation studies were repeated in their entirety in 1916 in the Department of Research Medicine of the University of Pennsylvania;34 and with the exception of the complete absence of species-specificity, a relatively unimportant point, Elschnig's original findings were confirmed. These studies were again repeated and confirmed by Nakamura.35 In the elaboration of the problem, it was then necessary to confirm these peculiar immunological properties by methods than the complement fixation reaction. The studies of Rados, Fuchs and Meller, and von Szily with anaphylactic experiments had been negative. The epiphanin reaction used by Weichardt and Kummel was of somewhat less than doubtful value, and the nature of the pigment antigen did not lend itself to the precipitin reaction. To supply the necessary confirmation, the antigenic properties of uveal tissue and uveal pigment were studied by perfusion of the eyes

of properly sensitized dogs.

Primarily,36 it was demonstrated that when the eyes of an animal; sensitized by the injection of a foreign protein, were perfused with a fluid containing the specific antigen, there occurred a marked contraction of the pupil—essentially a Dale-Schultz phenomenon, the contraction of sensitized smooth muscle in the presence of the specific antigen. Dogs were then sensitized to both heterologous and homologous uveal tissue and uveal pigment, and their eyes later perfused with defibrinated blood, to which was added in different experiments, the various anti-The general scheme of this perfusion is shown in Fig. 1. Again as a result of these experiments,37 the same antigenic properties of uveal pigment—organspecificity, partial lack of species-specificity, and the ability to act as an antigen in the homologous animal—were again demonstrated.

This demonstration that uveal tissue could act as an antigen in the homologous animal was the first link in the chain of evidence that allergy might be concerned in the etiology of sympathetic ophthalmia. The next steps were to demonstrate first that inflammatory allergic reactions could be produced in the uveal tract of an eye by the antigenic action of uveal pigment and, secondly, to produce sympathetic ophthalmia experimentally by such a mechanism. The first point has been successfully demonstrated; the second has not.

The experiments demonstrating that an inflammatory allergic reaction could be produced in the uveal tract of the eye by the antigenic action of uveal pigment were as follows³⁸:

Twelve normal dogs were given a sensitizing injection of 1 c.c. of uveal pigment emulsion by vitreous injection. A traumatic iridocyclitis in the injected eye followed the sensitizing intraocular injection. One dog developed a secondary infection and was discarded. After a period of from two to three weeks these dogs were given injections of phloridzin or uranium nitrate to produce an underlying disturbance, a phloridzin glycosuria or a uranium nephritis, and thus to lower their resistance. They were all then given an intoxicating injection of eight c.c. of uveal pigment emulsion by intraperitoneal injection. After the intoxicating dose

there followed a definite exacerbation of the traumatic iridocyclitis in the injected eye, and three of the ten experimental dogs developed a marked iridocyclitis in the second uninjected eye. Pathologically, these second eyes showed round cell infiltration of the anterior uvea, the iris, and ciliary body, with extension of the mononuclear infiltration up along the pectinate ligament to Descemet's membrane. No epithelioid or giant cells were found. It was believed at that time that this process was undoubtedly an anaphylactic or allergic reaction in the sensitized eyes, and might well represent sympathetic ophthalmia in the dog.

The weak points in this experiment are, however, apparent. All of the dogs showing the ocular reaction in the second eye were ill with a glycosuria or a nephritis, and on autopsy two of them showed an advanced bronchopneumonia. It may be that the lowering of resistance by these secondary infections was the necessary element to permit the outbreak of the eye inflammation, yet it must be admitted that this complicating element detracts from the force of the experiment. Further, it was assumed that the primary injection in the eye had produced a sensitivity in these animals, but this assumed sensitivity was not demonstrated by skin tests with pigment, or by biopsy of the

excised skin. In the second experiments ten normal dogs were subjected to an operative insult on the uvea of the right eye, with operative incarceration of the ciliary body in the wound. One dog was discarded on account of secondary infection, and a second dog was accidentally killed. The remaining eight dogs were not given phloridzin, uranium nitrate, or any other substances calculated to produce an underlying disturbance. They were later given intoxicating intraperitoneal injections of uveal pigment. Six dogs, which had all developed positive complement fixation reactions in the blood serum to uveal pigment antigen, showed no reaction of any kind to the intoxicating injection. The re-maining two dogs, who had not developed positive complement fixation tests to uveal pigment antigen, showed an exacerbation of the postoperative reaction in the operated eye, and a definite iridocyclitis in the unoperated eye. Pathological examination of these eyes showed the same picture already mentioned-a mononuclear infiltration of the ciliary body and root of the iris, with extension of the inflammatory process up along the pectinate ligament to Descemet's membrane. The general necropsy on one of the dogs, the one showing the maximum octilar reactions, was entirely negative. The second dog showed patches of bronchopneumonia. Again this experiment may be criticized for the reason that the hypersensitivity to uveal pignient was assumed and not proven by skin tests or by biopsy.

These experiments, however, appear to demonstrate that by sensitization and intoxication with uveal pigment, an allergic iridocyclitis can be produced. It is possible that the disturbance in the second uninjected and unoperated eye is the canine manifestation of sympathetic ophthalmia, but until we can produce the characteristic picture observed in the human, and demonstrate skin hypersensitivity to pigment, both clinically and by biopsy, and in experimental eyes produce the picture of epithelioid and giant cell infiltration with pigment phagocytosis, this cannot be granted.

In experiments underway at present we are endeavoring to produce demonstrable pigment hypersensitivity in dogs. My colleague, Dr. E. L. Burky, has recently found that by the simultaneous injection of a highly potent staphylococcus toxin and lens protein intracutaneously, he could produce a high degree of hypersensitivity to lens protein in rabbits. Without the intermediate use of the staphylococcus toxin, the injection of lens protein produced only a high precipitin titre, and did not produce sensitivity. We therefore, in a preliminary experiment, gave two dogs sixteen intraperitoneal injections of pigment and toxin, and two control dogs intraperitoneal injections of pigment alone. At the end of two months these dogs were skin-tested with uveal pigment. The dogs receiving the pigment-toxin mixture gave doubtfully negative clinical skin tests. The microscopic examination of the excised skin, an examination which will later be more fully described, was negative in one dog and doubtful in the second dog. The dogs receiving pigment alone gave completely negative skin tests, both clinically and microscopically. All four of these dogs were then subjected to a similar operative procedure on the right eye. A conjunctival flap was made, the sclera was incised over the ciliary body, a sharp hook was inserted, and the ciliary region was freely traumatized. Two tenths of a c.c. of uveal pigment emulsion was then injected in the traumatized uvea. The two control dogs, receiving pigment alone, gave little reaction to this operation, the eyes quickly recovering in four days. The two dogs

receiving the pigment-toxin injections both showed a prolonged chronic uveitis for over a month. At the end of this period the dogs were again skin-tested, and again were doubtfully negative. The general clinical appearance was that of an indolent progressive uveitis. One dog showed a definite nodule in the iris. Efforts to produce a disturbance in the second eye were fruitless. One month after the operation on the right eye, the dogs were given a carotid injection of one c.c. of uveal pigment, without any effect on the left eye. One week later they were given an intraocular injection of pigment in the left eye, again without effect. Apparently the combination of traumatization with injection of pigment was necessary to produce the clinical picture of a chronic uveitis. Unfortunately, these dogs were lost through accident, and there is no pathological material available for study. The experiment is now being repeated with a larger number of animals.

Clinical Evidence

Does uveal pigment produce any immunological reaction in man after wounds of the uveal tract which would permit its absorption? This question has been investigated by two methods: first, by examining in complement fixation reaction against an antigen of uveal pigment, the blood serums of patients who have suffered wounds and diseases of the uveal

Table I

Complement Fixation Reactions Against Pigment Antigen in Patients

	ŧ	reac igains	tion tion tuvea nent	
Ophthalmic diagnosis		Posi- tive		Remarks
Injuries of the uveal tract. Healing without sympathetic. Disturbance in second eye. Injuries of the uveal tract. Persistent traumatic uveits. Enumatic uveits.	12	12	0	
cleation of the injured	5	0	5	
Uveitis from constitutional causes	5	0	5	
Pigmentary degenera- tion of the retina	7	7	0	Very weak posi- tive reaction
Sympathetic ophthal- mia	6	0	6	One case doubtful sympathetic ophthalmia

tract; secondly, by studying the hypersensitivity to uveal pigment shown by an intracutaneous test in similar patients.

The essential finding in the first study³⁹ was that when normal healing of the injured eye occurred, there were complement binding antibodies to a pigment antigen in the blood stream. When either a persistent traumatic uveitis or sympathetic ophthalmia followed the initial uveal wound, such complement binding antibodies were absent. The other observations were unimportant. There was apparently no absorption of pigment in constitutional uveitis, the complement binding antibodies being absent regardless of the outcome of the disease; in pig-

Table II

Clinical Results of Intracutaneous Pigment Test

Posi- tive	Nega tive	Remarks
0	29	
0	12	
0	9	
0	13	
1	3	One weakly positive test. No confirmatory biopsy
3	49	Two weakly positive tests without confirmatory biopsy. One strongly positive test with confirmatory biopsy
5	27	Positive cases believed to be an endoph- thalmitis due to pig- ment allergy
5	0	Positive cases believed to be an endoph- thalmitis due to pig- ment allergy
22	2	Positive results in active sympathetic ophthalmia Negative results in old, healed sympathetic ophthalmia
	0 0 0 1 3 5 5 5	0 29 0 12 0 9 0 13 1 3 3 49

mentary degeneration of the retina, the complement binding antibodies were present in a low degree, no reason for this being apparent. (See Table I.)

These studies, when done in 1921, were interpreted on the basis that the presence of such pigment antibodies in the blood stream was an evidence of protection of the fixed cells against intoxication by the foreign protein action of uveal pigment. In persistent traumatic cyclitis and in sympathetic ophthalmia these protective antibodies did not occur, and therefore these patients were both deprived of the beneficial action of these antibodies, and the fixed cells, if sensitized by the primary absorption of uveal pigment, were exposed to intoxication by further absorption. Should an allergic reaction develop in the second eye, the clinical picture would be that of sympathetic ophthalmia.

This explanation was at that time logical and fitted in with the generally prevailing opinion that circulating antibodies were an evidence of vigorous response of the cells to foreign protein, and gave an immunity of the fixed cells to the foreign protein. Since then experimental observations of many types have made this view untenable. We know now that an individual or an experimental animal may show circulating antibodies in the blood stream and the fixed cells may be extremely hypersensitive to the specific foreign protein, and capable of anaphylactic shock or allergic reactions on subsequent absorption of the protein in question. Therefore, while it is possible that the interpretation of these studies first offered may be correct as far as uveal pigment is concerned, it is certainly wiser in the light of our present knowledge, to interpret these results more conservatively. Suffice it to say now, these studies at least indicate that in patients with wounds of the uveal tract, where normal healing occurs, there is definite evidence of absorption of pigment from the injured eye and of the production of an immune reaction to the pigment. This immune reaction is manifested by the occurrence of complement fixing bodies in the blood stream.

On account of the technical difficulties of the complement fixation reaction and the instability of the pigment antigen used in the test, this method of investigation was abandoned as a clinical diagnostic aid, and a second method of investigation—the determination of the presence or absence of hypersensitivity to pigment by an intracutaneous test with uveal pigment—was pursued.

The results of the intracutaneous tests are shown in Table II. They were reported first in 1932.40 Since then additional cases have been added, without any significant changes in the results. Positive pigment tests, indicating a systemic hypersensitivity, were found in a few cases of prolonged, noninfectious, recurrent, postoperative or posttraumatic uveitis. The histologic picture of such of these eyes as were enucleated was not that of sympathetic ophthalmia, but was somewhat suggestive. On the basis of these patients the suggestion was advanced that they were a hitherto undescribed clinical entity, an allergic endophthalmitis dependent on pigment allergy. To this view we still subscribe.

In all other forms of uveitis, excluding sympathetic ophthalmia, the intracutancous tests were entirely negative, with four exceptions. Three of these exceptions were doubtfully positive and might well have been classed as negative. No confirmatory biopsy of the excised skin was done on these patients. The fourth is the one clearcut "false positive." The patient was a nine year old boy, who after a repair operation recovered uneventfully penetrating corneal wound, from a through which the iris tissue had prolapsed. Two weeks after the injury he developed a strongly positive intracutaneous pigment test, which was later confirmed by biopsy of the excised skin. The test was later repeated with identical results. This patient has never developed any further ocular disturbance. Further reference will be made to this "false positive.'

All the patients with active sympathetic ophthalmia, twenty-two in number, gave positive reactions to the intracutaneous injection of uveal pigment. Two patients with old, inactive sympathetic disease, quiescent for years, in whom any pre-existing hypersensitivity might well be expected to have died out, gave negative reactions. While the great majority of the twenty-two patients giving positive reactions were positive on the first and

on repeated tests, this was not uniform. Several patients were encountered who were negative on the first test, only later becoming positive, and a few other patients were encountered who showed definite fluctuations in their hypersensitivity. While there may exist negative phases in the sensitivity during the active ment. The cutaneous hypersensitivity to uveal pigment is observed predominatingly in sympathetic ophthalmia, but is also observed in a few patients who show only a protracted, noninfectious, posttraumatic or postoperative uveitis.

The last clinical point deals with the therapeutic use of uveal pigment in sym-

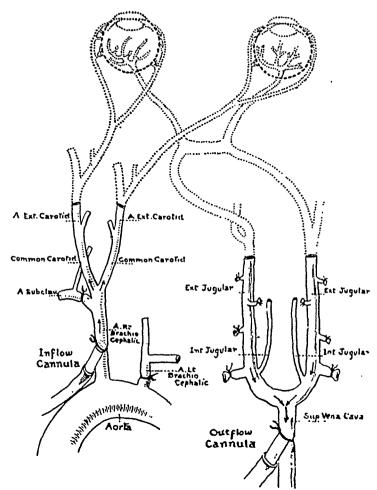


Fig. 1. Diagram showing position of inflow and outflow of the canulas and scheme of perfusion of the eye.

periods of the disease, hypersensitivity to uveal pigment is the general rule in patients with sympathetic ophthalmia.

On the basis of the above studies, the question "Does uveal pigment produce any immunological reaction in man after wounds of the uveal tract which permit its absorption?" may now be answered in the affirmative. The evidences of such reactions are the occurrence of complement fixing antibodies in the blood serum and a skin hypersensitivity to uveal pig-

pathetic ophthalmia. This treatment is based on the conception that allergy to pigment is at least a fundamental factor in the etiology complex, for it has been uniformly present in all cases of sympathetic ophthalmia with the exception of old, burned-out cases. Theoretically we should be able to remove this factor by desensitization with the specific allergin -an antigen of uveal pigment. What have been the results of such treatment?

To date twenty-three patients have been

treated by this procedure, two of whom disappeared while under treatment, and on whom no final information is avail able Light of the remaining twenty-one patients were blind when first seen and were treated only to control the inflammation. In four of these this was successfully accomplished, but in four others, on the last information, the inflammation was still active. Nine of the remaining thirteen patients showed complete healing of the sympathetic inflammation, with resulting vision from 20/15 to 20/200 The degree of vision resulting was usually dependent on the stage of the disease at which the therapy was instituted. The patients in whom the therapy was begun early in the disease obtained the best visual results, while the patients in whom the disease was more advanced, with consequent organic damage to the eye, pre served proportionately less vision with the subsidence of the infirmmation. One of these nine healed patients subsequently lost the eye through a second accident The remaining four patients, in whom the treatment was begun in the advanced stages of the disease, went steadily down hill to complete blindness. These results are shown in Table III

Summarizing these results, in nine of the thirteen patients in whom there was some hope of preserving vision desen stitzation with uverl pigment has been followed by complete subsidence of the sympathetic inflammation with preservation of useful vision, while in four patients the treatment was unsuccessful In eight patients, already blind when first seen, desensitization with pigment apparently controlled the inflammation in four in stances while in four instances it was insuccessful

Dr Jonas Friedenwald has attacked the question of desensitization from another angle Impressed by the undeniable facts that uveal pigment is an insoluble and feeble antigen and that absorption by parenteral injection must be relatively slow, he sought to obtain more rapid desensitization by producing a proliferation of the melanophores of the skin so the body might be provided with a readily available and widely distributed supply of pigment antigen, and desensitization might therefore be more readily achieved. To this end he treated three sympathetic

ophthalmia patients with ultraviolet light, exposing their bodies to an erythema dose three times weekly. Two patients, both children, made complete recoveries to normal vision, and in the third patient, an elderly semile individual, the sympathetic inflammatory process subsided, but vision was lost through organic changes in the eyes.

How do these results compare with re sults obtained by other methods of treatment? The results reported in the literature are confused by so many extraneous factors that it is almost impossible to judge. The disease is comparatively rare and the diagnosis in many reported cases is questionable. The stage of the disease in which treatment is instituted must influence the result, and but few authors report their complete experience with the disease The report of Post shows that of twenty five cases confirmed by pathologic diagnosis thirteen, or fifty-two percent, had recovery to normal vision. These were presumably all early cases. This record was achieved by no specific treatment, the patients receiving only the usual orthodox therapy Verhoeff, in a much larger series of sympathetic ophthal min patients reports sixty-six percent successful results by treatment with diplitheria antitoxin. In contrast to these records the patients treated by pigment desensitization in whom there was some hope for the preservation of vision, showed seventy percent favorable out

The question of the absorption of the insoluble pigment antigen has been studied recently by Dr H C Henton in the laboratory of the Wilmer Institute Henton has been able to demonstrate a high phagocytic index in patients treated with

TABLE III
Therapeutic Results of Desensitization with
Uveal Pigment in Sympathetic Ophthalmus*

	_					
	Total	Hea	l ng	Vo e	ffect	
Eyes bl nd -		No	%	No	00	Final vis on
Cont nued in flammation Eyes not bl nd	8	4	50%	4	50%	Blind
flammat on	13	9	70%	4	30%	20/15—20/70 Bl nd
Total	21	13	6200	8	380%	

^{*2} additional patents treated d sappeared from observation — no final reports

pigment. Using the classical method of determining the phagocytic index, with the serum of the treated patient, and the washed cells of a normal individual, he has been able to demonstrate that the neutrophiles, under the influence of the serum of a treated patient, will take up as many as seventy pigment granules, against a normal maximum phagocytosis of about five granules, where a normal

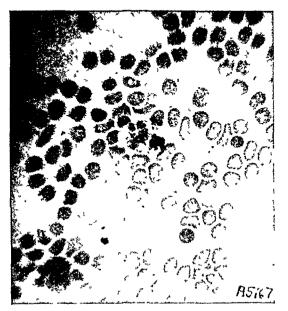


Fig. 2. Negative influence of normal serum on phagocytosis of pigment.

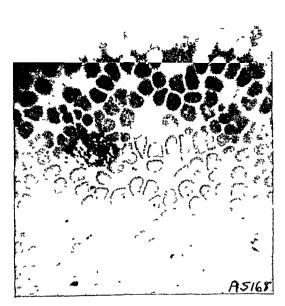


Fig. 3. Influence of serum of treated patient on phagocytosis of pigment (beef).

serum is used. (Figs. 2, 3, and 4). Further, he has been able to demonstrate that this phagocytosis of pigment is not specific for the type of pigment with which the patient has been treated. Thus the serum of a patient treated with bovine pigment will stimulate phagocytosis of bovine pigment, swine pigment and human pigment—a further demonstration of the organ-specific properties of uveal pigment.

The experimental and clinical evidence that allergy is concerned in the etiology of sympathetic ophthalmia consists, therefore, in the demonstration of the organspecific properties of uveal pigment, the ability of uveal pigment to act as an antigen in the homologous animal; the production of inflammatory lesions of the uveal tract by sensitization and intoxication with a pigment antigen; the demonstration of immune reactions in patients who have suffered penetrating wounds of the eye involving the uveal tract; the presence of hypersensitivity to uveal pigment in sympathetic ophthalmia, and the effects of pigment therapy in the disease.

Two radically different interpretations may be placed on this evidence. The first interpretation is that this evidence presents a logical and orderly sequence and indicates that allergy is concerned in the etiology of sympathetic ophthalmia. The second interpretation is that, granting the organ-specific properties and antigenic

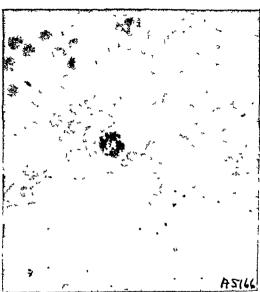


Fig. 4. Influence of serum of treated patient on phagocytosis of pigment (swine).

action of uveal pigment, nevertheless the immune reactions to pigment observed in patients are only the natural results of absorption of such a foreign protein, and are in no way related etiologically to sympathetic ophthalmia. Further, the beneficial effects of uveal pigment are not especially striking, and should only be regarded as a general nonspecific reaction.

To meet the points raised by this second interpretation, it must be demonstrated that pathological phenomena of pigment allergy and sympathetic ophthalmia are not unrelated entities but are similar, and that the histologic picture of pigment allergy is an essential part of the pathologic picture of sympathetic ophthalmia. To demonstrate this point we must turn to a study of the pathology of these two conditions.

Pathologic Evidence

This subject has recently been studied by Dr. Jonas S. Friedenwald.⁴¹ He first calls attention to the influence of allergy in pathology. This is especially evident in tuberculous infection where the entire histologic picture from inflammation, cascation and necrosis on the one hand, to little more than an inert foreign body reaction on the other hand, is governed by the presence or absence of allergy to tuberculoprotein.

In sympathetic ophthalmia, according to Koch's first postulate, one should regularly find the exciting agent present in the lesions. Therefore, if we assume that a reaction of the host to uveal pigment is concerned in the disease, we should expect to find pigment granules within the phagocytic cells in the lesions. In sympathetic ophthalmia this is precisely what we do find. The epithelioid and giant cells in the center of the lesions are loaded with pigment granules. (Figs. 5 & 6). It is true that pigment phagocytosis also occurs in other diseases of the eye, and Friedenwald has recently encountered a case of syphilitic uveitis when this was present to a marked degree. Yet it is in sympathetic disease that this phenomenon is constant and most marked, and constitutes the predominant characteristic. Even in the episcleral inflammatory nodules of sympathetic ophthalmia, this phenomenon of pigment phagocytosis is marked. Likewise, in such cases of sympathetic ophthalmia where there are deposits of pigment in the retina, the pigment is engulfed by the epithelioid cells. In contrast, in ocular tuberculosis, pigment phagocytosis is usually absent in the entire picture or, if present, is seen in conjunction with cascation and destructive lesions, and this is concerned chiefly with the monocytes.

Impressed by the massive cellular reaction, and the minimum vascular reaction in the picture of sympathetic ophthalmia, it occurred to Friedenwald that actual allergy to pigment in the skin might better be detected by studying the cellular reaction in the skin injected with uveal pigment rather than by relying on the slight vascular reaction about the site of injection as the index for a positive test. He also argued that if the allergy to uveal pigment is concerned in sympathetic ophthalmia, to fulfill Koch's second postulate, the injection of uveal pigment in the hypersensitive tissue should produce the characteristic picture of the disease. The experiment which would conclusively prove the relationship of pigment allergy to sympathetic ophthalmia would be the injection of uveal pigment in the unaffected eye of an individual hypersensitive to pigment; namely, such individuals as have shown a prolonged postoperative or posttraumatic uveitis without sympathetic onhthalmia, but with a demonstrable hypersensitivity to pigment, or in the "false positive" child already mentioned. This injection of pigment in human eyes being manifestly impossible, Friedenwald turned to the histologic examination of the skin injected with uveal pigment, secking to determine first, whether positive reactions to pigment could be better detected by histologic examination; and, second, to determine whether the injection of pigment in the skin of hypersensitive individuals produced in any way a pathologic picture comparable to that of sympathetic ophthalmia.

Primarily, it was necessary to discover the time, after the injection of pigment, at which any skin lesions due to pigment allergy would develop the maximum intensity. Accordingly, a patient suffering from sympathetic ophthalmia and clinically hypersensitive to uveal pigment, was given multiple intracutaneous injections of pigment, and the skin thus injected

was excised one, two, seven, and fourteen days after the injection and compared to similarly injected skin from normal controls, clinically insensitive to pigment.

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Definite differences were observable at the end of seven days, and at the end of fourteen days the differences were pronounced. In the routine study which has



Fig. 5. Sympathetic ophthalmia—exciting eye Epithelioid cellnodules, giant cells, and mononuclear infiltration.

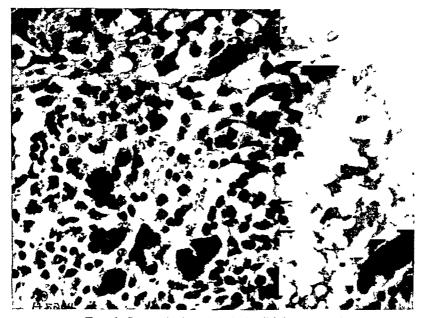


Fig 6 Sympathetic ophthalmia (high power of Fig 5) showing pigment phagocytosis

There was no difference in the histologic picture of the skin of normal and hypersensitive individuals when the skin was excised one or two days after injection. since then been carried out, the skin injected with uveal pigment has been excised at the end of fourteen days and examined histologically.

The skin of normal insensitive individuals shows uniformly large masses of unphagocytosed pigment surrounded by a zone of large mononuclears filled with

The skin of patients hypersensitive to uveal pigment shows a radically different picture. There is little or no unphagocytosed pigment. The whole area is in-



Fig 7. Negative skin test. Masses of phagocytosed pigment. Reaction limited to one low power field

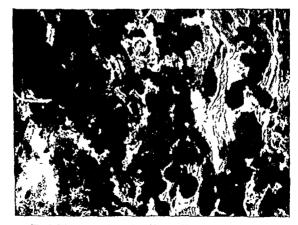


Fig. 8. High power of negative skin test. Unphagocytosed pigment.

pigment granules. Beyond this is a narrow zone of lymphocytes, and beyond this, normal tissue without reaction of any kind. (Figs. 7 & 8—high and low power).

filtrated with epithelioid and giant cells full of phagocytosed granules. There are definite nodules and nests of epithelioid cells, surrounded by a zone of lymphocytes with perivascular round cell infiltration—a picture in its histologic appearance indistinguishable from sympathetic ophthalmia. (Figs. 9 & 10). logic examinations are read as either positive or negative. The criteria for a "positive" test are that all the injected pigment be phagocytosed and that there

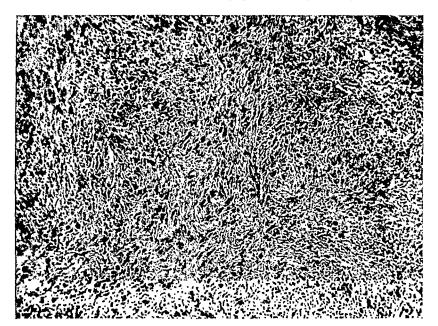


Fig. 9. Positive skin test. Epithelioid cells, giant cells, and pigment phagocytosis. Reaction covers about eight low power fields.

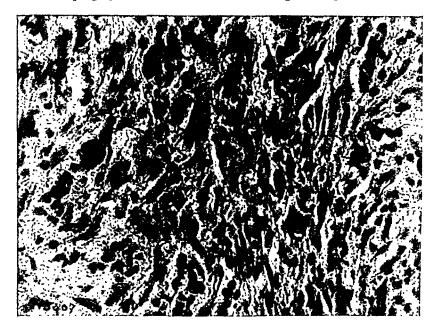


Fig. 10. Positive skin test (high power). Pigment phagocytosis.

To date there has been examined histologically the injected skin of thirty individuals, normal controls and patients with uveitis of various types. These histobe an abundant epithelioid cell reaction. The "negatives" are obviously those in which the pigment is not phagocytosed, and there is no, or only a slight, epi-

thehold cell reaction. In certain instances an intermediate reaction was observed where there was partial phagocytosis of pigment and moderate epithelioid cell mfiltration. In one instance, when the pigment phagocytosis was almost com plete, and the epithehoid cell reaction was marked, the test was read as positive, otherwise these slightly suggestive reactions are classed as negative. In four instances, when the injected skin was sent from other clinics for section and study, we have been unable to obtain a report on the chinical reading of the test . This leaves twenty-six individuals on whom intracutaneous pigment tests have been done, and on whom we have first independent clinical readings of the tests as positive or negative, and later histologic examinations with similar classifications as positive or negative reactions The results of this study are shown in Table IV

Five patients showed a positive clinical intracutaneous test, and each of these was later read as positive on histologic examination by a pathologist (Dr Friedenwald) In one of these specimens, the phagocytosis of the pigment was marked, but not complete, however, the epithehoid cell reaction was extreme Twenty tests were read as negative clinically, and all were classed as negative on histologic examination. One test was read as a doubtful chincally, and was read as negative by Dr Friedenwald This patient is interesting in that he was believed on clinical examination to have sympathetic ophthalma, but made an uneventful recovery without enucleation of the supposedly exciting eye This clinical diagnosis is therefore open to question This study shows clearly the close correlation of the clinical and histological reports However, the tests are at times difficult to read clinically, and there is a personal element involved It is obvious that greater reliance should be placed on the histologic picture of the excised skin

The second question is What is the relation of the histologic examinations, read as positive or negative, to the clinical ophthalmological picture? This relationship is shown in Table V

Seven patients with sympathetic ophthalmia all showed positive histologic skin reactions to uveal pigment. In six instances the phagocytosis of pigment was complete and the cellular reaction marked and extensive In the seventh instance there was still a small amount of unphagocytosed pigment, but the epithelioid cell reaction was again extensive and marked, and the test was read as positive In the uveitis group, without sympathetic ophthalmia, thirteen showed negative skin tests on histologic examination, and one a positive reaction This positive reaction occurred in the "false positive" child already described Four normal individuals gave entirely negative skin tests on histologic examination These studies confirm those found on the clinical reading of the intracutaneous pigment test, and indicate the constant presence of pigment allergy sympathetic ophthalmia, and its comparative rarity in other conditions Further. they clearly show the exact similarity of the histologic picture of pigment allergy and sympathetic ophthalmia

Comment

Such is the evidence that allergy is concerned in the etiology of sympathetic ophthalma. Briefly summarizing the points we have presented, the evidence consists in the demonstration of the organispecific properties of tiveal pigment, the ability of useal pigment to act as an

TAILT IV

Relation of Clinical and Histologic Readings of Intracutaneous Pigment Test

Clin cal rea i ngs		H _{isto} read	logic ings	Remarks
Result Pos tive	No 5	Posi tive 5	Vega tive 0	Incomplete phagocytos s in one instance Marked
Negative Doubtful	20 1	0	20	ep thelio d cell reaction

TABLE V
Histologic Results of Intracutaneous Pigment
Test

		tologic dings				
Clinical d agnos s		Negative	Remarks			
Sympathetic ophthalmia - Active Sympathet cophthalmia -	7	0				
Healed Uvertis postoperative	0	5				
traumatic or const to	1	13	The false			
Normal controls	0	4	positive .			

antigen in the homologous animal, the production of an experimental uveal inflammation through the use of uveal pigment as an antigen, the demonstration of immune reactions to pigment in patients who have suffered injuries which permit the absorption of uveal pigment, the partial control of these observations in experimental animals, the occurrence of hypersensitivity to pigment in certain cases of posttraumatic and postoperative uveitis, the constant occurrence of pigment allergy in patients with sympathetic ophthalmia, the results obtained in the treatment of sympathetic ophthalmia by desensitization with pigment, the phagocytosis of pigment in the pathologic picture of sympathetic ophthalmia, and the exact similarity of the histologic pictures of pigment allergy and sympathetic ophthalmia.

This appears to be a convincing array of evidence, but does it indicate that pigment allergy is the actual and only cause of sympathetic ophthalmia? We must remember that we have found pigment allergy in certain cases of noninfectious, posttraumatic, and postoperative uveitis without sympathetic disease, and in one case where there was uneventful healing of the uveal wound with neither posttraumatic uveitis or sympathetic ophthalmia—one case only, but so clearcut it cannot be overlooked. Remembering this we must answer this question in the negative; the evidence does not indicate that pigment allergy is the actual and only cause of sympathetic ophthalmia. The evidence does indicate that pigment allergy is the predisposing factor necessary for the outbreak of sympathetic disease. In short, it lays the necessary foundation for the disease to occur, and apparently determines the pathologic picture. But when the proper foundation is laid, and the development of pigment allergy sets the stage for the development of sympathetic ophthalmia, what factor initiates the inflammatory process?

On this point we can only speculate.

Friedenwald offers the ingenious suggestion that the proliferation of melanophores in the Dalen-Fuchs nodules may be the factor. He suggests that while the melanin in the normal cells produces no reaction in the sensitized tissue, that the proliferating melanophores in the Dalen-Fuchs nodules are especially susceptible, that they are vulnerable to the tissue antibodies, and undergoing autolysis, release their pigment which elicits the allergic inflammatory process. This hypothesis is based on the observation that in sympathetic ophthalmia the melanophores in the Dalen-Fuchs nodules have undergone autolysis, and their pigment is phagocytosed by the epithelioid and giant cells. But is this the cause or the result of the sympathetic disturbance? The question cannot be answered. It may be that any nonspecific stimulus, bacterial or toxic, may be the initiating factor once the stage is set by the development of pigment allergy. It may be that pigment allergy in such eyes predisposes them to the deposition of tubercle bacilli from the blood stream-in line with Meller's views that tubercle bacilli are the actual cause of sympathetic ophthalmia. We do not know. None of these ideas are completely convincing. The question must be answered by first producing in experimental animals the same picture of pigment allergy, with the same positive skin reactions to uveal pigment we observe in the human. When this is accomplished, we can then study the effects of various stimuli in the activation of the eyes. For the time being we can only say that the evidence indicates, and we believe it to be so, that the development of allergy to uveal pigment is the essential predisposing factor necessary to permit the outbreak of sympathetic. ophthalmia, that some other unknown factor acts as the actual spark which initiates the process, and that once initiated, pigment allergy is again the factor which determines the characteristic histologic picture.

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Discussion

DR CONRAD BERLIS, New York City-Those of you who have read the prinstaking researches of Doctor Woods must have been impressed as I was, by the enormous amount of work he has done, by his faithfulness in searching for the truth, and above all by his conservative conclusions My in terest has been principally in endeavoring to determine the importance of the skin

tests to uveil pigment
Intradermal Tests in General When skin tests are positive, they are almost positive proof of an allergic state, although this does not always determine the particular antigen to which the patient may be sensitized For example, it has been shown by Van Lecuwen that practically all allergic persons give positive reactions to certain antigens, while practically all nonallergic subjects give negative reactions to the same antigents A substance of this character is human dan druff I should like to know what studies Doctor Woods has made of the relation of his positive and negative skin test cases to other forms of allergy in these individuals, especially those with allergic history, family and personal, and sensitization to other sub-

Intradermal Tests to Urcal Pigment

Woods and Friedenwald have recently shown that there is a histologic difference in the skin reactions of persons who are allergic and those who are not allergic to intradermal injection of inveal pigment. If this is a specific reaction it is certainly an extremely important point in diagnosis Triedenwald (Notes on Allergy Theory of Sympathetic Ophthalmia, Ir Assoc Res Ophth, Fourth scientific meeting, Milwaukee, Wis, 1934, p 47) found these specific differences in five active cases of sympathetic ophthalmitis but they were all sent in two cases of "old healed sympathetic ophthalmitis" In view of the facts added by Doctor Woods, the examination of the skin after fourteen days seems to be an important part of skin testing and I wonder whether he could give us details of technic not given in his paper, i e, method of excision, fixation, etc Because of the common occurrence of multiple sensitization it is not surprising that the present tendency is to discount the value of skin tests in determin ing the specific antigen supposedly the cause of symptoms in many diseases

It might be profitable to study the reac tions to uveal pigment in seventy-three cases (see accompanying table) Of the seventy-three cases, twenty-five control tests were positive at one-half hour but only four of these were positive at twenty-four hours. One of the twenty-five patients was positive to the uveal pigment test at twenty-four hours and four were positive at one-half hour. In one true case of sympathetic ophthalmitis, confirmed microscopically, the uveal pigment tests was negative. The history of this case follows:

A. U., male, aged 23. Diagnosis: O. S.—acute postoperative uveitis, secondary glaucoma. O. D.—sympathetic ophthalmitis. The uveal pigment test and control were negative. The left eye was enucleated. The pathologic diagnosis was sympathetic ophthalmitis. Cultures from the eyeball both aerobically and anaerobically were negative after incubating the entire eyeball for five days (E. B. Burchell).

In four cases the uveal pigment test was positive. The diagnoses were: (1) detached retina probably secondary to chorioretinitis; (2) iridocyclitis, cause undetermined, although there was a 4+ reaction to intradermal tuberculin and the skin tests were markedly positive to autogenous vaccines of throat and gastrointestinal origin; (3) postoperative (cataract) iridocyclitis, O. D., and secondary sympathetic irritation, O. S., uveal pigment injections apparently not effective, also autogenous vaccines and lens antigen although the patient was sensitive to all these substances and to all cycloplegics. There was strikingly rapid subsidence of inflammation after evacuation of pus found in the right ethmoid region. Hypersensitivity to drugs also disappeared. (4) cataracts, O. U.; patient was also positive to lens antigen.

Two of the four patients who were undoubtedly hypersensitive to uveal pigment also showed marked reaction to skin tests with separate selected strains of autogenous vaccines. The patient with sympathetic ophthalmitis also had sinus disease (Dr. Craig) and was hypersensitive to autogenous vaccines from his nasopharynx. Rinaldi (Ann. di Ottal., 61:268, 1933), who studied the skin tests in 130 patients, found the intradermal tests negative in two true cases of sympathetic ophthalmitis in his series and that patients with normal eyes also showed some hypersensitiveness to uveal pigment. He concluded that uveal pigment tests have no clinical value.

These findings have led me to question whether allergy to certain bacterial toxins is not an important factor in the development of hypersensitivity to uveal pigment and whether it may not be an important factor in sympathetic ophthalmitis. The rôle of infection in allergy to pollens is fairly well established and Burky's uncompleted experiments with potent staphylococcus toxin are most important and should certainly be carried further.

I have made no studies of eosinophilia in the blood or tissues of these patients and although eosinophilia is not a constant phenomenon in allergy (Kahn and Stout) and may, for example, disappear from the nasal membranes in violent attacks of allergic rhinitis and in intercurrent bacterial infections, the majority of allergic patients have eosinophilia. I would like to know whether Doctor Woods has studied this phase of the problem.

TABLE—RESULTS OF UVEAL PIGMENT TESTS*

	Positive	Negative	Doubtful
Uveitis due to constitutional causes	3	14	5
Contusions with traumatic uveitis No sympathetic ophthalmitis		3	1
Endophthalmitis phacoanaphylactica (One eye lost after lens extraction)			1
Penetrating wounds involving uveal tract			-
Recovery without enucleation; no sympathetic ophthalmitis Enucleation of injured eye; no sympathetic ophthalmitis		16 3	1 1
Sympathetic ophthalmitis Foreign body (not verified pathologically) Penetrating wounds (not verified pathologically) Postoperative case (enucleation, cultures negative, pathologic		1 1	
report sympathetic ophthalmitis)		1	1
Optic atrophy Cataract Normal eyes	1	1 14 2	3
Total of all cases subdivided		56 73	13

^{*} Parke-Davis pigment used in 33 cases; Burky pigment in 40 cases.

In regard to treatment with uveal pigment-even though in the one case in which I used it faithfully it was apparently valueless-it seems to be scientific therapy in patients who are hypersensitive to uveal pigment as shown by skin tests even though its action may be mainly nonspecific. It is probable that tuberculin injections in symophthalmitis (Purtscher, Zischr. f. Augenh., 83:163, 1934; Meller, J.: Zischr. f. Augenh., 83:145, 1934) are nonspecific in their action and the Lowenstein technic is open to serious question according to the findings of the British Research Council (Wilson, G. S.: Medical Research, Council, London, Special Report Series, No. 182, 1933).

Rinaldi and Quaglio (Ann. di Ottal., 61: 295, 1933) also studied the intradermal tests in 140 patients with aqueous extract of bovine choroid devoid of pigment. In affections of the uveal tract 7.85 per cent were positive and four per cent of persons with normal eyes or in cases in which the uvea was not involved were positive; in two cases of sympathetic ophthalmitis and two of sympathetic irritation intradermal tests were negative. I would be greatly interested in knowing whether Doctor Woods has used uveal tissue devoid of pigment as an allergen. If he has, how do the histologic reactions differ in the cases in which pigment free uveal tissue is employed?

In conclusion, the more I see of intradermal tests in general the more conservative I become in attributing too much importance to them. However, when intra-dermal tests with fresh uyeal pigment are performed and are definitely positive at the end of twenty-four hours, they probably indicate sensitization to uveal pigment,

especially when control tests are negative. That they indicate that the person may or may not be developing sympathetic ophthalmitis has been, in my judgment, an unsettled question but Doctor Woods has presented the most convincing proof that I have seen. From studies of the literature and from our own experiments I am inclined to believe that hypersensitiveness to uveal pigment plays some part in the development of sympathetic ophthalmitis. Whether this is a primary or secondary part I do not know. My impression is that a more important factor is the sensitization of the patient to toxins from his own bacteria and that this is more likely to be the exciting factor which produces the more serious part of the disease. The organspecific hypersensitiveness to uveal pigment which is set up may be a factor in preparing the fellow eye for the elective effect of the toxins from other foci of infection. In the few cases I have seen which were supposed to have sympathetic ophthalmitis, there has always been the association of definite disease in the nasal accessory sinuses, and apparently the best results that I have seen from any treatment, occurred when the sinuses could be properly cared for.

In closing, I must express my appreciation of the enormous amount of scientific work Doctor Woods has devoted to this important subject and especially for the fact that his scientific mind has never permitted him to draw conclusions too hastily. Doctor Woods has said that the final evidence must be from experiments on human beings and in immunity it is most necessary to use human beings because the immunologic reactions seem to differ widely in man

and animals.

A SURVEY OF CASES OF SYMPATHETIC OPHTHALMIA OCCURRING IN NEW YORK STATE

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The relative infrequency of sympathetic ophthalmia demands that every case be reported so that all may profit from the experience of others. With this thought in mind a questionnaire was sent to the 471 practicing ophthalmologists in New York state with the hope that an analysis might lead to some interesting observations. Of 212 (45 per cent) who replied 112 reported that they had never treated sympathetic ophthalmia, while eighteen stated that they had observed cases but that their records were either lost or not accessible. Eighty-two physicians reported 158 cases of sympathetic disease, in five of which the condition was apparently sympathetic irritation, and in two uveitis due to some other cause. There were 151 cases in which the clinical diagnosis seemed reasonably certain. Fifteen physicians reported from three to eight cases each; nineteen reported two each, and the remainder one each. Only forty-eight of the 126 enucleated exciting eyes were examined microscopically; in five the condition proved doubtful, and in two, not present, leaving forty-one in which the diagnosis was confirmed by microscopic examination.

Table I shows that thirty-four (92 per cent) occurred within the ten year period from 1925 to 1935. This compares with sixty-five per cent of the unconfirmed cases. Even if one assumes that the more recent cases are bound to predominate in returns from a questionnaire, these figures tend to show that sympathetic ophthalmia is not decreasing in frequency. Twentynine males and nine females were affected. In three cases the sex was not stated. The age incidence (Table II) ranged from three and one-half to seventy-seven years. Nine patients (22 per cent) were twelve years of age or younger. The periods of least incidence were those from thirteen to twenty and from thirty-one to fifty vears.

The exciting causes are shown in Table

TABLE I.—CHRONOLOGICAL INCIDENCE

1 1 1 10 24 4	1910 to 1915 1	1915 to 1920	1920 to 1925	1925 to 1930 10	1935	No Report
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Table II.—Incidence According to Sex and Age

	Age, Years								
Sex Male Female Sex not stated	10 4 3	20 2 1	30 9 0	31- 40 2 1	50	51 60 3 1 3.	77	? 1 1	Total 29 9 3

TABLE III.—Exciting Cause

Cause	Cases	Per Cent
Perforating trauma	26	63.5
intraocular operations	8	19.5
Cataract extraction	5	12.2
Nonperforating trauma	4	9.8
Perforating corneal ulcer Phthisis bulbi following	1	2.4
measles	1	2.4
Sarcoma of choroid	1	2.4

TABLE IV.—INTERVAL BETWEEN INJURY AND ONSET

Interval	Cases	Per Cent
9 days 3 wks2 mos 3 mos1 yr 5 yrs48 yrs	1 16 12 7	2.8 44.4 33.3 19.4
No report	5	••••

sympathetic ophthalmia followed a perforating wound usually involving the uveal tract. In eight patients (19.5 per cent) it resulted from an intraocular operation; in five of these (12.2 per cent) the operation was a cataract extraction. In four patients (9.8 per cent) the sympathetic involvement followed a nonperforating injury. In the remaining three patients the condition was attributed, respectively, to a perforating corneal ulcer (2.5 per cent), phthisis bulbi following measles (2.5 per cent) and a necrotic sarcoma of the choroid (2.5 per cent).

The interval between injury and the onset of sympathetic inflammation (Table IV) ranged from nine days to forty-eight years. In only one patient was it less than three weeks. In sixteen patients the period was from three weeks to two months and in twelve from three months to one year. It is quite unusual that seven cases (Table V) were reported in which the interval was from five to forty-eight years. However, in two of these there is a question of the true interval. In one patient a fragment of steel had been in the lens for six years, producing a low grade uveitis with secondary glaucoma. The steel was removed with the lens in capsule, and this operation was followed seven weeks later by sympathetic inflammation in the fellow eye. Another patient had recurrent plastic iridocyclitis and secondary glaucoma forty-eight years after a perforating injury. Sympathetic ophthalmia followed nine days after enucleation with a gold ball implant, which may have been a factor in producing the disease. A case of perforating corneal ulcer is interesting in that the exciting eye had been quiet seventeen years when iridocylitis developed, and the other eye became involved. In a patient with phthisis bulbi following measles sympathetic inflammation occurred eleven years later. A patient whose eye was gored by the horn of a bull began to have accommodative and visual symptoms twenty-four years afterward, while another who received a gunshot injury appeared twenty years later with beginning involvement of the fellow eye.

The course was severe in twenty-five cases (62.5 per cent), moderate in six (15 per cent) and mild in nine (22.5 per

cent) The duration (Table VI) ranged from two weeks to two years. In eleven patients the discase ran a course of less than three months, in two it was unusually short—two and three weeks, respectively. In nine patients the duration was from three to six months, and in seven, from six months to two years. In three patients the disease had run its course when first observed, and in one it was still active at the time of the report.

The final vision is shown in Table VII Of fifteen patients with useful sight all except two had vision of 20/40 or better In 594 per cent the vision was 3/200 or less Comparison with seventy-four cases in which the diagnosis was not confirmed by microscopic examination suggests that there were instances of microrrect diagnosis

in the latter group

The multiplicity of therapeutic agents used makes an analysis of treatment difficult and of little value as there is no defimte relationship between any particular course of treatment and the ultimate outcome Treatment in sixty one per cent of 151 cases included large doses of salicylates (46 per cent) or of acetylsalicylic acid (15 per cent) in combination with injections of foreign proteins Mercury munctions, potassium iodide and pilocarpine hydrochloride (to produce sweats), either alone or in combination, was used in seventy-five per cent of the cases Intravenous therapy was used in twelve instances---: e, arsenicals in seven salicylates in two, typhoid vaccine in two and dextrose in one Other therapeutic agents reported used were diphtheria antiautohemotherapy, hyperpyrexia. erysipelas and prodigiosus toxins (Coley)

vaccine, tuberculin, thyroid extract, transfusions, todo cthylthioninamine, the mercury vapor are in quartz, tetanus antitoxin, useal pigment and cod liver oil Local treatment uniformly consisted mainly of mydriatics and hot or cold applications. Many of the reports showed careful chimination of foci or infection as well as examination by means of Wassermann and tuberculin tests.

The prophylactic value of enucleation is greatest immediately after the injury, and it diminishes markedly with lapse of time Dor' maintains that if enucleation is delayed as long as two weeks its effect is invariably lost, and the present series seems to confirm his contention (Table VIII) Six exciting eyes (146 per cent) were removed before any signs of sympathetic inflammation were noted in the fellow eyes. In only one instance was the period between injury and enucleation as short as two weeks, and in this one the disease ran a short mild course ending with vision of 20/15 In the other five cases in which the interval was twenty-six days or longer the condition was moderate or severe and of long duration and resulted in blind-The interval between enucleation and involvement of the fellow eve ranged from two days to two months, and in only two of the six cases was it less than two weeks Woods and Little 2 concluded from their series that sympathetic inflamination may be feared for at least two weeks after removal of the exciting eye. The statistics presented in this paper indicate that the period may be as long as two months

It is generally agreed that enucleation has little or no effect after sympathetic ophthalmia is established, and there are

TABLE V - CASES IN WHICH THERE WAS A LONG INTERVAL BETWEEN INJURY AND ONSET

_							
Age of Pa							
tient	Sex	Excit ng Cause	Condit on of Exciting Eye	Interval	Course	Duration	End Result
27	M	Ol from pressure gun 6 yrs before	Steel in lens uve tis secondary glaucoma steel removed with lens in capsule	6 yrs 7 wks	Severe	5 wks	20/15
60	M	Perforating wood 48 yrs before	Iridocycl tis secondary glaucoma enucleation with gold ball implant	48 yrs 9 days	Severe	10 mos	No percept on of light
41	M	Perforating corneal ulcer 17 years before	Adherent leukoma ırıdocyclitis	17 yrs.	Severe	6 mos	No perception of light
12	М	Measles 11 years before	Phthisis bulbi	11 yrs	Severe	4 mos	No perception
32	М	Gored by horn of bull 24 yrs before	Phthisis bulbi (bone formation at posterior pole)	24 3 15	Mild	?	of light Good vis on
45	M	Gunshot wound 20 sears before		20 yrs	Mod	6 wks	20/15
45	F	?	Iridocyclitis	5 yrs	Mild	?	Good vision

some who feel that its value is exaggerated even when it is done early. Table IX compares the final vision in 126 patients (including 41 whose condition was proved to be sympathetic ophthalmia) in whom the exciting eye was removed with that in twenty-three patients in whom there was no enucleation. The favorable comparison in the cases in which the exciting eye was

TABLE VI.—DURATION

Period	Cases	Per Cent
Less than 1 mo	2	7.4
1-3 mos,	9	33.3 33.3
6 mos2 yrs	7	26.0
Still active	1 3	• • • •
No report	10	

TABLE VII,—FINAL VISION

(Condition Con- firmed by Condition Not Microscopic Studied Examination Microscopically					
Final Vision	Cases	Per Cent	Cases	Per Cent		
No perception of light Perception of light 3/200 20/200-20/15	17 5 15	45.9 13.5 40.6	19 14 41	25.7 18.9 55.4		
No report	$\frac{4}{41}$	••••	$\frac{\cdot \cdot}{74}$	••••		

not enucleated is due to retention of vision in the exciting eye in five instances. If one considers only the sympathizing eye one finds better visual results in the cases in which the exciting eye was enucleated. The figures indicate that removal of the exciting eye favorably influences the ultimate result in the sympathizing eye.

Nonperforating trauma as a cause of sympathetic ophthalmia is usually viewed with suspicion, and the percentage of cases caused by it in this series is unusually high (9.8 per cent). Of the four cases reported (Table X) two resulted from airgun injuries in children. The chief characteristic in each was hyphemia. The conjunctiva and cornea were intact, and there was no rupture of the sclera. In one case the hyphemia persisted for ten months, while in the other a low grade uveitis with hypotony developed. After periods of one year and of five months. respectively, the fellow eye became involved. In the third case there was a subconjunctival scleral rupture 10 mm, in length with no demonstrable break in the conjunctiva. The anterior chamber was

TABLE VIII.—CASES OCCURRING SUBSEQUENT TO ENUCLEATION OF EXCITING EYE

Age of Pa- tient	Sex	Exciting Cause	Subsequent Course	Interval Between Injury and Enuclea- tion	Interval Be- tween Enucle- ation and Onset	Interval Be- tween Injury and Onset	Course	Duration	
29	M	Perforation of sclera	•••••	2 wks.	4 wks	6 wks	Mild	39 days	20/15
20	F	Trauma	Uveitis, cataract	26 days	2 days	4 wks.	Severe	4 mos.	No perception of light
64	M	Cataract extraction	Iritis, updrawn pupil, lens mass in pupil	27 days	2 wks.	41 days	Mod- erate	2 yrs.	Perception of hand move- ments
7	F	Perforating flying metal	Uveitis, 2 intraoc- ular foreign bodies found after enucleation		2 mos.	5 mos.	Severe	20 mos.	Perception of light
68	F	Cataract extraction	Plastic uveitis	5 mos.	1 mo.	6 mos.	Mod- erate	18 mos.	No perception of light
60	M	Perforating wound	Plastic uveitis, sec- ondary glaucoma	48 yrs.	9 days	48 yrs. 9 days	Severe	10 mos.	No perception of light

TABLE IX.—COMPARISON OF THE RESULTS IN CASES IN WHICH THE EXCITING EYE WAS ENUCLEATED WITH THE RESULTS IN THOSE IN WHICH IT WAS NOT

		Percentage in Which Final Vision Was Given		
Group	Cases	No Perception of Light	Perception of Light to 8/200	20/200 to 20/15
Exciting eye was enucleated No enucleation. Vision in better eye. Vision in sympathizing eye.	126 23	35.1 15.8 42.1	13.8 31.6 21.1	51.1 52.6 36.8

filled with blood, and vision was reduced to perception of light. The hyphemia persisted, and the globe became soft. Five weeks after the injury a mild attack of sympathetic inflammation occurred. The exciting cause in the fourth case may be open to question. The patient was struck by a baseball resulting in iridodialysis and intra-ocular hemorrhage but no rupture. The iridodialysis was repaired by the Key method five weeks after the injury. This was followed by a low grade indocyclitis with keratitis punctata. Three months after the injury and seven weeks after the operation the fellow eve became affected with sympathetic disease. While the first three cases demonstrate the appearance of sympathetic ophthalmia as the result of nonperforating trauma, the last is less convincing, as the operation may have been the exciting cause or at least a contributing factor. In all four cases hyphemia was a prominent feature.

The menace of sympathetic ophthalmia is ever present after intraocular surgical operations, particularly cataract extractions. Five of the eight postoperative cases in this series were attributed to cataract extractions (Table XI). One patient had

a hypermature cataract, one had chronic simple glaucoma and complicated cataract, and another was highly myopic. The interval between operation and involvement of the fellow eye varied from one to six months and the duration from three months to two years. Two cases were severe and three moderate. Four of the five cases resulted in loss of the perception of light, and in the fifth vision was reduced to perception of hand motion. The results in these few cases indicate that sympathetic oplithalmia due to cataract extraction is unusually violent, as maintained by Hambresin and others. Table XII compares the final vision in these cases with that in seventeen cases resultmg from cataract extractions in which the exciting eye was not examined microscopically, again suggesting that there were instances of incorrect diagnosis in the latter group.

In seven of the seventeen unconfirmed cases the exerting eye was not removed, and in all but two of these vision in the sympathizing eye was completely lost, one patient retaining vision of 20/30 and the other ability to see fingers at three feet (76 cm). Of four patients retaining

TABLE X - CASES RESULTING FROM NONPERFORATING INJURIES

Age		Condition of Exciting Eye				•			
of Pa- lent 8	Sex M	Exciting Cause B. B. bullet	When Obse		At Onset of Sympathizing Ophthalmia Low grade uveitis	Interval 5 mos	Course Mild	Duration	Final Vision
11					-		•••••	20	of light
	М	B B. bullet	Hyphem	ıa	Hyphemia for 10 mos	131	••		No perception of light
30	M	Contusion	Scieral r cloudy or hyphemi ception o	orner.	Ciliary convestion, persistent hyphemia, keratitis punctata, de- creased tension, faint perception of light	5 wks	Mild	3 wks	20/20 1 yr. later
25	М	Baseball	orrhage,	ar hem- iridodials-	Low grade iridocy clitis, keratitis punctata	3 mos 7 wks.	Severe	6 mos	20/15 2 yrs later
-				TABLE	XI —Postoperative	Cases			
of Pa-									
Pa-	Sex	Complic		Post	operative Course	Interval	Course	Duration	
of Pa- ient 67	M	Complicated	1 cataract	Post Iridocy cli			Mod-	Duration 3 mos.	No perceptio
of Pa- tient 67	M	Complicated	1 cataract	Post Iridocy cla weeks aft	operative Course trs, bullous keratitis 6 er operation ipdrawn pupil with lens	Interval 30 days			No perception of light Perception of hand move-
of Pa- hent 67	M	Complicated	1 cataract	Post Iridocy cli weeks aft Uveitis, 1	operative Course trs, bullous keratitis 6 er operation ipdrawn pupil with lens	Interval 30 days	Mod- erate Mod-	3 mos.	Perception of hand move- ments No perception
of Pa- ient 67	M	Complicated	1 cataract coma recataract	Post Iridocycli weeks aft Uveitis, t mass in p	operative Course tis, bullous keratitis 6 er operation spirawn pupil with lens upil cetts, exudate, secondary	Interval 30 days 41 days	Mod- erate Mod- erate	3 mos. 2 yrs	No perception of light Perception of hand move- ments

TABLE XII.—COMPARISON OF FINAL VISION IN CONFIRMED AND NONCONFIRMED CASES RE-SULTING FROM CATARACT EXTRACTIONS

	Condition firmed Micros Examin	by copic	Condition Not Studied Microscopically	
Final Vision No perception of light Fingers at 3 feet or less 20/100-20/30	Cases 4 1 0 5	Per Cent 80 20 0	Cases 10 2 5	Per Cent 58.8 11.8 29.4

vision in the exciting eye one had vision of 20/100, one of hand motion and two of light.

Sympathetic diseases in children is usually severe and the outcome unfavorable (Table XIII). Nine patients (22 per cent) in this series were twelve years of age or younger. In five the course was severe; in one moderate; in two, mild, and in one it was not reported. Only two patients retained useful vision-20/40 and 20/20, respectively. This shows a marked contrast to twenty-one unconfirmed cases in children fifteen years of age or younger, once more suggesting mistaken diagnosis.

Summary and Conclusions

Sympathetic ophthalmia occurs less frequently than its diagnosis, since uveitis due to other causes, especially that due to tuberculosis, may give a similar clinical picture. A routine microscopic examination of the enucleated exciting eve is indicated if only for its statistical value. In this series of 151 cases in which the clinical features of sympathetic ophthalmia were present 126 exciting eyes were enucleated; forty-eight were examined microscopically, and in all but seven the diagnosis was confirmed. The forty-one cases in which the diagnosis was established showed a higher percentage of final visual defects than did the cases in which no microscopic examination was made. This raises the question of correct diagnosis which pathologic examination would have eliminated.

Analysis of the forty-one confirmed cases indicates that:

1. The frequency of sympathetic ophthalmia is not decreasing.

TABLE XIII.—COMPARISON OF FINAL VISION IN CONFIRMED AND NONCONFIRMED CASES IN CHILDREN

	Condition Confirmed by Microscopic Examination		Condition Not Studied Microscopically		
Final Vision No perception of light 3/200 or less	Cases 4 3 2	Per Cent 44.4 33.3 22.2	Cases 4 4 13 21	Per Cent 19 19 62	

- 2. Nonperforating trauma may not be a rare exciting cause.
- 3. Sympathetic ophthalmia due to cataract extraction is unusually violent and the prognosis grave.
- 4. The interval between injury to the exciting eve and the onset of sympathetic inflammation may vary from nine days to twenty-four years, or possibly to forty-eight
- 5. Sympathetic ophthalmia may be feared for at least two months after enucleation of the exciting eve.
- 6. Removal of the exciting eye before the onset of sympathetic inflammation does not favorably influence the ultimate outcome if the enucleation is delayed twenty-six days or more after the injury.
- 7. Sympathetic ophthalmia in children is unusually severe and the outcome unfavor-

Comparison of 126 cases (forty-one of which were confirmed) in which the exciting eve was removed with twenty-three cases in which there was no enucleation indicates that removal of the exciting eye favorably influences the ultimate outcome in the sympathetic eye.

In conclusion, I wish to thank the ophthalmologists who contributed to this report for their cooperation in answering the questionnaires.

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FACE PAIN

Grorgi H Hyslop, M D, New York City

The subject which I am presenting is one which I believe may be of interest because it is not only a topic which frequently presents itself to the clinician, but involves problems of anatomy and physiology which are not yet settled. Being reminded of our lack of knowledge should not only stimulate inquiry, but also enable us to avoid the pitfalls of improper therapy based upon misconceptions or ignorance.

Face pun may be the result of abnormality in tissues supplied by the trigeminal nerve and its connections. It may also be caused by abnormality directly affecting, in a structural way, the peripheral and central portions of the trigeminal nerve and its connections Disease of either character frequently complicates the clinical problem by causing discomfort or pain in areas not normally supplied by the trigenimal nerve Some patients will complain of discomforts in the occiput, neck, and even the shoulder Certain varieties of headrche may be clinically related to face pain. I will try to restrict myself to pain in the face

Touch and discriminative sense stimuli of the face and front part of the head are carried in the trigeminal nerve. Pain and temperature stımulı arc transmitted through the trigeminal nerve Embryologically, the first or ophthalmic division of this nerve is separate and distinct from the other two divisions, and the oculo motor nerve can be regarded as its motor component Pressure or deep pain of the face, and perhaps vibratory sensibility stimuli, are transmitted by the facial nerve

The peripheral portion of the trigeninal nerve enters the pons Touch and discrimination sense pass from the pons to the thalamus by way of a small tract lying medial and dorsal to the median lemniscus Pain, temperature, and some tactile fibers form what is called the descending root of the trigeninal nerve which ends in a nucleus extending into the upper cervical portion of the spinal cord. Then, after

decussiting, ascending central fibers pass to the thilamus by way of the spinothalium tract

Deep pain sensibility, which is carried by the facial nerve, is transmitted by the geniculate ganglion of this nerve, via the nervous intermedius, to the poins

The connections of the trigement nerve with the vegetative nervous system have

not been finally established

The accompanying table is convenient for enumerating the conditions in which face pain may occur. It should be remembered that face pain, as a symptom, may occur in the absence of structural pathology directly affecting and involving the central or peripheral pathways of the trigenimal nerve.

The seeming predilection for involvement of the ophthalium division in cases of post-infectional neuralgia, suggests that the avenue of entrance of such infections (particularly influenza) to the body is the upper nasopharyna. The same may hold true in the instances of herpes affecting the ophthalmic division

In glaucoma, the supraorbital and frontal pain is regarded as due to pressure on the selera and irritation or pressure

affecting the ciliary nerves

The special variety of face pain called "atypical facial neuralgia" occurs prob ably just as frequently as true trigeminal neuralgia. It is always a difficult clinical problem, and I think deserves detailed comment The pain itself has certain com mon characteristics in the majority of It tends to be constant, with cases exacerbations influenced by barometric conditions, fatigue, and emotional tension It may be associated with migramous headaches, and vasomotor phenomena may be prominent. The discomfort or prin itself is usually described as deep within, and there is no superficial hyper esthesia or any trigger zone Patients are apt to be vague in describing their dis comfort, and use many terms-boring, grinding, and aching are words often used The discomfort often radiates to the back of the head, neck, and shoulder

Occasionally the pain distribution may be restricted to one or more branches of the trigeminal nerve.

Sluder directed attention to the possibility that such pain is due to a disorder of the vegetative nervous system.

No true afferent or sensory fibers have been found in the vegetative nervous system. Sensation from the viscera and blood vessels is carried by fibers which travel in the vegetative nervous system through the sympathetic trunks, and then to the posterior root ganglia by way of the white rami. Davis and Pollock¹ account for pain in the head and face in certain cases, in which the vegetative nervous system or sympathetic fibers are a factor, in the following way:

Some stimulus produces a reflex in the vegetative nervous system; its efferent fibers transmit impulses which bring about a mechanical or chemical change in tissues; the special visceral afferent fibers in these tissues then transmit sensation via the portion of the trigeminal nerve supplying the tissues affected.

However, various writers have proposed that different portions of the vegetative nervous system may be involved and responsible for reflex pain in the face.

Woollard² described the occurrence of degeneration in the mesencephalic root of

the fifth nerve after resection of the third nerve. This suggests that the fifth nerve may carry sensory fibers originating in other nerves. Confirmation of his findings would aid in explaining some instances of atypical facial pain.

Blier³ refers to visceral afferent fibers from the nose being carried in the greater superficial petrosal nerve. Stewart and Lambert⁴ deny the occurrence of visceral afferent fibers in the sphenopalatine ganglion and nasopalatine nerves.

The Sluder syndrome, in which the pain is prominent in the area supplied by the maxillary or second branch of the trigeminal nerve, seems to be caused by infection in the paranasal sinuses, and particularly in the tissues of the upper nasal cavity.

Frazier⁵ reported that electrical stimulation of the superior cervical sympathetic ganglion may produce pain in the trigeminal distribution zone. Peet⁶ discussed the possible role of the sympathetic nervous system in atypical facial neuralgia.

As far as is known, no sensory fibers have been identified entering the superior cervical sympathetic ganglion. But from this ganglion, fibers pass through the glossopharyngeal, vagus, and upper cervical nerves. Peet called attention to a

TABLE

	No STRUCTURAL NERVE PATHO	LOGY	WITH STRUCTURAL NERVE PATHOLO	OGY
	Cause of Syndrome	Sensory change		Sensory change
Lower Neuron — First Division	Glaucoma Postinfectional neuralgia Migraire. Visual error Infection; soft perts, sirus (ethmod frontal)	0 0 0 0	Tumor: skull, meninges	Yes Yes Yes Yes ? Yes
Second Division	Sluder syndrome Infection; soft parts, sinus Dental infection Tumor; sinus, bones Migraine	0 0 0 0	Arthritis or myositis of temporomandi- bular joint	? Yes Yes Yes
Third Division	As for Second Division Tumor; tongue, tonsil, mandible Auriculotemporal neuralgia	0	As for Second Division	
Ganglion	Tic douloureux	0	Tumor, aneurysm, meningeal inflammation, adjacent; herpes zoster	Yes
Uncertain	Dysesthesias, atypical neuralgia.	0		
Root — Pons			Multiple sclerosis, tabes, syringopontia. Infection — syphilis, tuberculosis, etc. Vascular disease of pons	Usually
Root — Descending			Tumor, aneurysm or inflammation of upper cervical cord, vertebrae, or meninges	Usually
Thalamus			Theoretically possible	
Cortex		•••••	Sensory aura of epilepsy	Varies

group of fibers passing between the nodosum ganglion of the vagus and the superior cervical sympathetic ganglion. Whether these fibers originate in the sympathetic or the vagus is not known. Peet recorded one case in which stimulation of these fibers increased pain in the cheek and cutting the fibers stopped the atypical neuralgia pain.

He also notes that electrical stimulation of the great superficial petrosal nerve will produce pain but not the pain of "atypical neuralgia." It is possible that since deep pressure pain is characteristic of "atypical neuralgia," transmission may be through the facial nerve. There is no clinical or anatomical evidence as yet in favor of

this hypothesis.

Fay notes that the pain of an atypical facial neuralgia disappeared when a spinal anesthesia reached the level of the first thoracic segment. This and other observations led Fay to suggest that relief of such pain by removal of the upper thoracic sympathetic chain and stellate ganglion is due to interrupting pain fibers which accompany the blood vessels to the face and which enter the cord in the upper thoracic segments. He also suggests that branches of the vagus nerve associated with the cranial vessels may transmit pain.

Mixter and White⁸ report a case in which the pain was relieved by injection or removal of the cervicodorsal and second dorsal ganglia. This procedure extends the anatomical possibilities not only for pathways of pain in the face, but

for relief of this symptom.

I have seen a number of patients at Memorial Hospital who have malignant disease affecting the lymph nodes in the neck, and who complain of pain in the trigeminal area distribution, as well as in the upper cervical segmental areas. I have been unable to find any evidence of intracranial extension of malignancy in these cases, some of whom have remained under observation for a period of months. Such pain may develop as a reaction to a recent course of irradiation treatment. It is common to observe that induration and fibrosis in the neck, especially over the carotid bulb, caused by extensive irradiation therapy, precede the appearance such pain. Assuming that the malignant disease has not invaded the base of the skull, it seems possible that the face pain is a reflex response to irritation of the sympathetic fibers running along the blood vessels to the skull and brain. Relief of such pain is a difficult problem, since frequently the extent and degree of induration are such that one cannot attempt any operation through the tissues affected.

Pottenger^o states that he has seen patients with facial pain which he regarded as a distant reflex from chest or lung disease, and suggests that the vagus nerve carries the afferent impulses which are transmitted centrally by connections with the descending root of the trigeminal

nerve.

Some writers stress the belief that patients with atypical facial neuralgia are psychoneurotic, and that treatment, to be effective, must center upon psychotherapy. A generation ago the medical text books still included statements of similar character about some patients with tic douloureux. With the perfection of surgical treatment of this condition, psychotherapy has been omitted as a means of treatment. and such patients are no longer regarded as having their pain as a psychoneurotic symptom. One cannot doubt that a psychoneurotic individual who is suffering from a painful condition may materially complicate the problem of diagnosis and treatment. The words of Sir James Paget10 are perhaps applicable to such situations.

For pain expected, watched for, long thought of, will come: will come in or from the nerve center and be as bitter as any from the nerve's ends... and, conversely, the longer and more often the attention can be diverted from any pain, the less does the power of discerning the pain become, just as the muscular or any other sense when out of practice loses some of its cunning.

I do not doubt that some sufferers from atypical neuralgia are psychoneurotic. However, somatic painful disease can readily bring to the surface latent psychic conflicts. The relief of this particular type of pain by such procedures as Sluder, Peet, and Fay have described, and the uncertainty and incompleteness of our anatomical knowledge should lead to an open mind on our part.

Case 1. Fig. 1 shows one of a series of skull films which enabled us to make a

diagnosis in a forty-eight year old woman who entered the hospital because of what seemed to be tic douloureux involving the first and second divisions of the right trigeminal nerve. She had had her paroxysms for eighteen years, and had been given a dozen or more alcohol injections.

Neurological examination showed a very slightly diminished sensibility in the area supplied by the ophthalmic division of the right trigeminal nerve. This sign was regarded as the result of the many alcohol injections. The patient's physical status was otherwise normal.

This illustration shows an osteoma at the base of the skull which was found to lie in close proximity to the foramina of exit of the first and second branches of the right trigeminal nerve. The tumor was removed by operation. (Neurological Institute.)

Case 2. Fig. 2 reveals abnormalities discovered in a film of the base of the skull taken so as to show the middle fossa. The patient was a twenty-eight year old woman who for six months had complained of pain in the right ear, lower border of the right jaw, and the right temple. This pain had been intermittent, and there were paroxysms which were similar to those observed in tic douloureux. She also was troubled with vertigo and tinnitus in the right ear.

Examination showed sensory impairment in the area supplied in the second and third divisions of the right trigeminal nerve, questionable weakness of the muscles supplied by the right facial nerve, and a right sided nerve deafness and slightly abnormal tendon reflexes on the left side.

This patient was difficult to examine, because of her unstable personality, and the objective findings, except for the nerve deafness, varied so much that an organic diagnosis was not easy. Because of the nerve deafness, we felt satisfied that the pain had an organic basis.

Routine stereoscopic x-ray films of the skull did not show any abnormality. A careful examination of the upper pharynx showed what seemed to be a tumor mass and a biopsy examination of tissue from the pharynx showed that the patient had a Schwenke tumor. We then took a film of the base of the skull. As can be seen, the tumor had invaded the floor of the middle fossa on the right side, and was producing symptoms by involvement of the cranial nerves. As time passed, facial weakness and external rectus palsy appeared on the right side. (Neurological Institute.)

I have perhaps given more attention than necessary to the subject of atypical neuralgia. I wish that our knowledge as to the cause and method of relief of this type of face pain were more complete. It seems evident, however, that face pain



Fig. 1. Osteoma at base of skull, posterior to Sella Turcica. (Case 1.) (Neurological Institute)

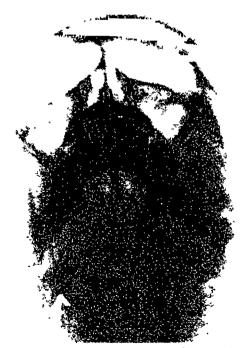


Fig. 2. Film of base of skull showing invasion and destructive changes in right middle and posterior fossae. (Case 2.) (Neurological Institute)

may be due to disturbance of the sympathetic function, and that the well-known diffuseness and complexity of sympathetic conduction make it necessary to investigate relatively distant regions for the source of such pain,

Treatment of face pain obviously depends upon measures which will influence the cause of this symptom. Symptomatic measures include using the common analgesic drugs, massage, and other forms of physiotherapy, and in the case of patients with true trigeminal neuralgia or tic douloureux preceding decision as to operation, inhalation of trichlorethylene, gelsemium, diathermy, and application of low or medium voltage x-ray may be tried. 129 EAST 69TH ST.

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CASE REPORT

TRAUMATIC DIVISION OF TRANSVERSE COLON AND COMPLETE LOSS OF GREATER OMENTUM, WITH RECOVERY

VINCENT D. LEONE, M.D., Niagara Falls

The following case is reported because it shows the extent to which the gastrointestinal tract and peritoneum can be traumatized, with contamination incident to such severe trauma, and still recover.

- In an exhaustive review of literature since 1920, I can find no report of a case of traumatic loss of the entire omentum. Complete traumatic division of the transverse colon with recovery is also apparently rare. Savage¹ states that wounds of the large intestine are twice as fatal as those of the small intestines. G. Gordon-Taylor2 states by reason of the size of this portion (large intestine) of the intestinal tract, its wounds are mostly of perforations or tears and the bowel is rarely completely divided, Regarding treatment, Gordon-Taylor states whole experience of the surgery of the war demonstrated that suture suffices in an overwhelming majority of cases of injury to the colon.

In the case which is the subject of this report the transverse colon was completely divided and the entire omentum had been torn from its attachment to the transverse colon.

M.N., white, male, age 26, taxi driver, was admitted to the Niagara Falls Memorial Hospital on May 31, 1935, at 8:35 A.M. with a history that the man had attempted suicide by slashing his abdomen, wrists and legs with a razor. Dr. E. A. Cortese, the attending physician, who assisted me with the operation, stated that after the evisceration of the bowel, in his presence, the patient suddenly grasped the protruding omentum and literally tore it off from its attachment.

It was later revealed that this man had been under antiluctic treatment for the past four years. For a period of a few weeks he had been acting queerly, was depressed and introspective. The morning of his admission he had attacked his wife with a razor.

On admission the patient had been administered one half grain of morphine sulphate, and about one hour later, at the time of my examination, he had reacted fairly well from the initial shock. He was lying quietly on the table, pulse was 120, respirations, 24. Examination of the abdomen

with several large ecchymotic areas. The mucous membranes of the mouth and the pharynx showed numerous petechiae. The cervical lymph glands were enlarged. There were rales and dullness over the left upper chest. The spleen was not palpable. Roentgenograms of the chest showed bilateral pulmonary tuberculosis with cavitation.

The hemoglobin was seven grams, red blood cells 3,100,000, white blood cells 8,500. The differential count was normal but there was complete absence of platelets in the smear. The bleeding time was markedly prolonged. The clotting time was six minutes and clot retraction was poor. The urine was negative except for a few red blood cells. The blood Wassermann reaction was negative.

On June 22, a transfusion of 500 cubic centimeters of citiated blood was given. The pulse and temperature remained elevated. On the evening of June 23rd, she complained of severe, sharp pain in the face; the following morning she was found

dead in bed.

Necropsy findings: On removal of the brain a large hemorrhage was found in the upper and outer aspect of the left lobe of the cerebellum, beneath the leptomeninges. On section, the hemorrhage extended into the cerebellar structure a distance of three centimeters. The brain stem was displaced to the right. There was no evidence of hemorrhage into the cerebrum or ventricles. Extensive pulmonary and glandular tuberculosis was present. Other organs showed many small hemorrhages.



Fig. 1. Large intracranial hemorrhage with rupture of the cortex. Case III.

Case III. S.M., a forty-eight year old housewife, was admitted to the Rochester Municipal Hospital, April 28, 1929. She complained of jerky movements and of weakness of the muscles of the left side of the body. These symptoms began suddenly the morning of admission. One hour later she lost consciousness for five minutes. The past history was negative except that for six weeks prior to admission she had bruised easily and "black and blue spots" had appeared without known antecedent trauma.

The patient was mentally clear and not acutely ill. The skin and mucous membranes showed innumerable small and large hemorrhages. The examination of the heart, lungs, and abdomen was negative. Neurological examination revealed weakness and clonic movements of the left lower face, arm and leg. The tendon reflexes were increased on the left. A Babinski sign could not be elicited.

The hemoglobin was 9.75 grams, red blood cells 3,000,000, white blood cells 7,500. The differential count was normal. No platelets were seen in the smear. The bleeding time was prolonged. The clotting time was six minutes. The blood Wassermann reaction was negative. Lumbar puncture revealed bloody spinal fluid under normal pressure

Several hours after the lumbar puncture, which was done on the evening of admission to the hospital, she complained of severe headache and vomited. The following morning she became comatose. The right pupil was dilated and there was complete paralysis of the left arm and leg. Death occured three hours after the onset of coma.

Necropsy findings: On opening the dura an extensive hemorrhage was found over the right parietal lobe and a smaller one was seen over the anterior pole of the right temporal lobe. Section of the brain revealed a large fresh hemorrhage measuring six by six by six centimeters, located in the anterior superior part of the right parietal lobe. It had ruptured through the cortex (Fig. 1). A similar but smaller hemorrhage was found at the tip of the right temporal lobe.

Case IV. C.B., an eighteen year old student, was admitted to the Strong Memorial Hospital, February 14, 1934. He complained of weakness, and of bleeding from the gums. Six months before admission ecclymotic areas had appeared over the legs without known antecedent trauma. There had been several attacks of severe nose bleed and of bleeding from the gums over a period of several weeks prior to admission. The past history was negative except that he had not enjoyed his usual good health

may be due to disturbance of the sympathetic function, and that the well-known diffuseness and complexity of sympathetic conduction make it necessary to investigate relatively distant regions for the source of such pain.

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M.N., white, male, age 26, taxi driver, was admitted to the Niagara Falls Memorial Hospital on May 31, 1935, at 8:35 A,M. with a history that the man had attempted suicide by slashing his abdomen, wrists and legs with a razor. Dr. E. A. Cortese, the attending physician, who assisted me with the operation, stated that after the evisceration of the bowel, in his presence, the patient suddenly grasped the protruding omentum and literally tore it off from its attachment.

It was later revealed that this man had been under antiluetic treatment for the past four years. For a period of a few weeks he had been acting queerly, was depressed and introspective. The morning of his admission he had attacked his wife with a razor.

On admission the patient had been administered one half grain of morphine sulphate, and about one hour later, at the time of my examination, he had reacted fairly well from the initial shock. He was lying quietly on the table, pulse was 120, respirations, 24. Examination of

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showed a few loops of the small bowel lying outside of the abdomen, as well as the transverse colon which was completely severed to the gastrocolic ligament. The omentum was missing except for a small strip attached to the transverse colon. There were also lacerations of both forearms and both legs below the knees. Patient was prepared immediately for operation. The skin was painted with tincture of merthiolate after the bowel was covered with warm sterile pads. Two intestinal clamps were placed to close the severed ends of the transverse colon, and then the exposed bowel was flushed with copious amounts of sterile saline. An end to end anastomosis of the transverse colon was made and the suture line was reinforced with a small strip of the remaining omentum. There was no injury of the small bowel lying outside of the abdomen, so the incision was enlarged, bowel replaced, and thorough examination made of the stomach and remaining bowel. A Penrose drain was placed at the site of the anastomosis and one at the ileocecal fossa. 200 c.c. of amfetin was left in the abdomen, a large portion of which drained through the drains within the next few hours. The abdomen was closed in layers and reinforced by silk worm sutures. 1000 c.c. of normal saline was given by hyperdermoclysis.

Convalescence was somewhat stormy. During the first week the temperature varied from 101.6 to 103.6; pulse 110 to 120, respirations, 26 to 40. Strange as it may seem his mental condition appeared perfectly normal during this time. He cooperated well and talked rationally. The first four days he was given 3000 c.c. of 5 per cent glucose in normal saline solution daily. Nothing was given by mouth until the third day when he was started on peptonized milk. On the third

day he had his first bowel movement which was liquid in character. 0.1 c.c. of B. coli mixed bacterial antigen was given intradermally every other day. Drains were shortened each day and the one placed next to the anastomosis removed on the fourth day, the other on the sixth day. There was considerable purulent drainage starting on the third day, and on the fifth to eighth day it was fecal in character. The sinus remaining after drains were removed was irrigated with Dakin's solution daily and within two weeks was entirely healed.

There was nothing unusual in the routine blood counts and urinalyses. Blood Wasserman was one plus in alcoholic and two plus in the cholesterinized antigen. Spinal fluid Wassermann was negative in both alcohol and cholesterinized antigens. The spinal fluid was not under pressure; there were eight cells per cmm, one plus globulin and Fehling's solution was reduced. The collodial gold curve fell in luetic zone. On July 3rd, patient was removed to the Buffalo State Hospital for malarial treatment for cerebral lues. At the time of his discharge his abdomen was completely healed, he was having daily bowel movements and complained of no gastric distress after eating. Personal communication with his attending physician at the Buffalo State Hospital on a recent date revealed that he was having no difficulty from his gastrointestinal tract.

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References

- 1. Savage, T. C.: Perforated wounds of the intestines, Internat. J. Surg., 38:25, 1925.
- 2. Gordon-Taylor, G. et al.: Discussion on the diagnosis and treatment of injuries of the intestines, *Brit. m. j.*, 2:641, 1921.

MEETING OF THE AMERICAN COLLEGE OF PHYSICIANS

The Twentieth Annual Session of the American College of Physicians will be held in Detroit with headquarters at the Book-Cadillac Hotel, March 2-6, 1936.

Dr. James Alex. Miller, of New York City, is President of the College, and has arranged a program of general scientific sessions of great interest to those engaged in the practice of Internal Medicine and associated specialties. Dr. Charles G. Jennings, of Detroit, is the General Chairman of the Session, and is in charge of the program of clinics and demonstrations in the hospitals, medical schools and other Detroit institutions. Dr. James D. Bruce, Vice President in Charge of University Relations,

University of Michigan, is Vice Chairman of the Committee on Arrangements, and has in charge the preparation of an all-day program to be conducted at the University of Michigan on Wednesday, March 4. Dr. Walter B. Cannon, Professor of Physiology at Harvard University Medical School, will deliver the annual Convocation Oration on "The Role of Emotion in Disease." Dr. Miller's presidential address will be on "The Changing Order in Medicine." About fifty eminent authorities will present papers at the general scientific sessions, while clinics and demonstrations will be conducted at the Harper, Receiving, Ford, Grace, Herman Kiefer and Children's Hospitals, of Detroit.

PURPURA HEMORRHAGICA WITH INTRACRANIAL HEMORRHAGE

Paul H. Garvey, M.D., Rochester

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It has long been recognized that sudden and often fatal intracranial hemorrhage may occur in patients with purpura hemorrhagica. A review of the recent literature indicates that the frequency of this complication is underestimated. In 1934, Geiger1 was able to collect only twentyfive instances of intracranial bleeding in purpura hemorrhagica. In his own series of thirty-six cases, two of five fatalities were due to cerebrospinal hemorrhage. Several observers 2.3.4 have recorded approximately the same incidence of intracranial hemorrhage as a cause of death in small series of cases.

In this clinic, since 1926, a diagnosis of purpura hemorrhagica has been made in thirty cases. Of these, ten ended fatally and the cause of death in seven was an intracranial hemorrhage. In five the diagnosis was confirmed at autopsy.

Report of Cases

Case I. E.B., a nineteen year old student. was admitted to the Strong Memorial Hospital, January 6, 1934. He complained of bloody urine and of bleeding into the skin and mucous membranes. He was considered well until two years previously, at which time a tooth had been extracted, with profuse bleeding from the socket over a period of ten days. Since then he had noticed that he bled freely from minor cuts, bruised readily and had occasional bloody and tarry stools. Three weeks prior to admission he had an acute respiratory infection, followed by many petechiae, frequent nose bleeds, bleeding from the gums, and hematuria.

The patient was a tall, pale youth who appeared chronically ill. The vital signs normal. There were numerous petechiae over the skin and mucous membranes. There were several large ecclymotic areas over the anterior surface of the legs. The fundi showed several old hemorrhages. The physical examination was otherwise

negative.

The hemoglobin was 11.4 grams per 100 cubic centimeters, red blood cells 3,300,000 per cubic millimeter, white blood cells 10,850 per cubic millimeter. The differential formula was normal. The smear showed only one platelet in every twenty-five oil immersion fields. The bleeding time was sixty minutes. The clotting time (Howell) was eight minutes. The clot did not retract. Repeated urine examinations showed both gross and microscopic blood. Stools were negative for occult blood. The blood Wassermann test was negative.

The patient was given three blood transfusious of 300 cubic centimeters each, without improvement. On the evening of January 15th, he complained of a severe right frontoparietal headache followed by weakness of the left side of the body. Death occurred three hours after the onset of the headache.

Necropsy findings: External examination of the brain revealed a small hemorrhage in the subarachnoid space along the ventral surface of the pons and medulla. On section, the right frontoparietal lobe showed a hemorrhage measuring three by four centimeters which had ruptured into the right lateral ventricle. Microscopic examination of the brain revealed numerous small hemorrhages in the pons, and others in the immediate neighborhood of the large intra-cerebral hemorrhage.

Case II. S.S., a twenty-two year old girl, was admitted to the Rochester Municipal Hospital, June 20, 1934. She complained of "black and blue spots" over her body and of bleeding from the nose and mouth. These symptoms began on the day of admission to the hospital. Five weeks before she had noted enlargement of the glands of both sides of the neck; these had gradually re-The glandular enlargement was accompanied by fever and malaise. The past history was irrelevant.

The patient was a well-nourished girl who appeared acutely ill. The temperature was 38.2° C. and the pulse was 128. There was a fine purpuric eruption over the body,

Read at the Annual Meeting of the Medical Society of the State of New York, Albany, May 15, 1935

with several large ecchymotic areas. The mucous membranes of the mouth and the pharynx showed numerous petechiae. The cervical lymph glands were enlarged. There were rales and dullness over the left upper chest. The spleen was not palpable. Roentgenograms of the chest showed bilateral pulmonary tuberculosis with cavitation.

The hemoglobin was seven grams, red blood cells 3,100,000, white blood cells 8,500. The differential count was normal but there was complete absence of platelets in the smear. The bleeding time was markedly prolonged. The clotting time was six minutes and clot retraction was poor. The urine was negative except for a few red blood cells. The blood Wassermann reaction was negative.

On June 22, a transfusion of 500 cubic centimeters of citrated blood was given. The pulse and temperature remained elevated. On the evening of June 23rd, she complained of severe, sharp pain in the face; the following morning she was found dead in bed.

Necropsy findings: On removal of the brain a large hemorrhage was found in the upper and outer aspect of the left lobe of the cerebellum, beneath the leptomeninges. On section, the hemorrhage extended into the cerebellar structure a distance of three centimeters. The brain stem was displaced to the right. There was no evidence of hemorrhage into the cerebrum or ventricles. Extensive pulmonary and glandular tuberculosis was present. Other organs showed many small hemorrhages.



Fig. 1. Large intracranial hemorrhage with rupture of the cortex. Case III.

Case III. S.M., a forty-eight year old housewife, was admitted to the Rochester Municipal Hospital, April 28, 1929. She complained of jerky movements and of weakness of the muscles of the left side of the body. These symptoms began suddenly the morning of admission. One hour later she lost consciousness for five minutes. The past history was negative except that for six weeks prior to admission she had bruised easily and "black and blue spots" had appeared without known antecedent trauma.

The patient was mentally clear and not acutely ill. The skin and mucous membranes showed innumerable small and large hemorrhages. The examination of the heart, lungs, and abdomen was negative. Neurological examination revealed weakness and clonic movements of the left lower face, arm and leg. The tendon reflexes were increased on the left. A Babinski sign could not be elicited.

The hemoglobin was 9.75 grams, red blood cells 3,000,000, white blood cells 7,500. The differential count was normal. No platelets were seen in the smear. The bleeding time was prolonged. The clotting time was six minutes. The blood Wassermann reaction was negative. Lumbar puncture revealed bloody spinal fluid under normal pressure.

Several hours after the lumbar puncture, which was done on the evening of admission to the hospital, she complained of severe headache and vomited. The following morning she became comatose. The right pupil was dilated and there was complete paralysis of the left arm and leg. Death occured three hours after the onset of coma.

Necropsy findings: On opening the dura an extensive hemorrhage was found over the right parietal lobe and a smaller one was seen over the anterior pole of the right temporal lobe. Section of the brain revealed a large fresh hemorrhage measuring six by six by six centimeters, located in the anterior superior part of the right parietal lobe. It had ruptured through the cortex (Fig. 1). A similar but smaller hemorrhage was found at the tip of the right temporal lobe.

Case IV. C.B., an eighteen year old student, was admitted to the Strong Memorial Hospital, February 14, 1934. He complained of weakness, and of bleeding from the gums. Six months before admission ecchymotic areas had appeared over the legs without known antecedent trauma. There had been several attacks of severe nose bleed and of bleeding from the gums over a period of several weeks prior to admission. The past history was negative except that he had not enjoyed his usual good health

following an attack of whooping cough three years before.

The patient was a thin, pale youth who appeared chronically ill. There were several petechiae over the face, neck, and extremities, and numerous small hemorrhages over the mucous membranes of the nose and gums. Ophthalmoscopic examination revealed numerous retinal hemorrhages. The physical examination was otherwise negative.

The hemoglobin was 5.5 grams, red blood cells 1,860,000, white blood cells 1,900. Differential count: neutrophiles, forty-two per cent; lymphocytes, fifty-four per cent; monocytes, four per cent. The red blood cells showed marked hypochromia. No platelets were seen in several smears. The bleeding time was thirty minutes. The clotting time was thirty minutes. Urine and stool examinations revealed the presence of blood. Blood cultures were repeatedly negative until one week before death when Bacillus coli was cultured.

Bleeding into the skin and from the mucous membranes continued in spite of frequent transfusions. On April 11th, he suddenly became comatose and died several hours later.

Necropsy findings: A large subarachnoid hemorrhage was found over the base of the brain covering the cerebellum and the brain stem (Fig. 2). On section of the brain numerous petechiae were found beneath the ependyma in all ventricles.

Case V. E.L., a 33 year old laborer, was admitted to the Rochester Municipal Hospital, April 2, 1934. Six days before admission to the hospital he had received an injection of sulpharsphenamine, which was followed by the appearance of red spots over his body. Three days later he noticed blood in his urine. On the morning of admission he awoke suddenly with a feeling of dizziness, followed by nausea and vomiting. The past history was negative except that a diagnosis of primary syphilis had been made five months before.

The patient appeared acutely ill. He avoided any movement of the head because it increased the dizziness. The skin was practically covered with petechiae measuring two to four millimeters in diameter. The physical examination was otherwise negative.

The hemoglobin was 11.4 grams, red blood cells 3,800,000, white blood cells 11,700. Differential count: neutrophiles, ninety-four per cent; lymphocytes, four per cent; monocytes, one per cent; cosinophiles, one per cent. No platelets were seen in the blood films. The urine was grossly bloody. Fourteen hours after admission he sud-

denly developed a severe headache shortly followed by cessation of respirations and death.

Necropsy findings: In the cerebellopontine angle there was a hemorrhage beneath the arachnoid measuring 1 x 1.5 centimeters in diameter, extending to the right of the midline. On section of the brain, a large hemorrhage was found in the right cerebellar lobe. It measured three and one-half centimeters at its greatest diameter. The third ventricle was filled with blood. The cerebrum showed no evidence of hemorrhage.

Discussion

In dealing with a syndrome in which widespread hemorrhage is the cardinal feature, it is not surprising that hemorrhage occurs in the brain and meninges with considerable frequency. Perhaps the most common type of bleeding into the central nervous system is in the occurrence of small, capillary ring hemorrhages which occur, as a rule, in both the white and gray matter of the cerebrum and cerebellum-the so-called brain purpura (Fig. 3). Gordon⁵ described a case in which profound changes in the nervous system, presumably due to small hemorrhages, were confined to the gray matter of the brain and spinal cord. The clinical symptoms produced by this type of bleeding are minimal and are usually obscured by the symptomatology of large hemorrhages located elsewhere,

It has been our experience, and that of

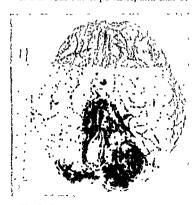


Fig. 2. Large localized subarachanoid hemorrhage. Case IV.

others,^{2,4} that the most common cause of death in purpura hemorrhagica is the development of one or more large intracranial hemorrhages. In discussing the signs and symptoms produced by these hemorrhages Longcope⁶ and Geiger¹ state

While cerebral hemorrhage is one of the feared complications of purpura hemorrhagica, it does not necessarily imply a fatal prognosis. Several instances of spontaneous recovery from subarachnoid bleeding have been recorded.

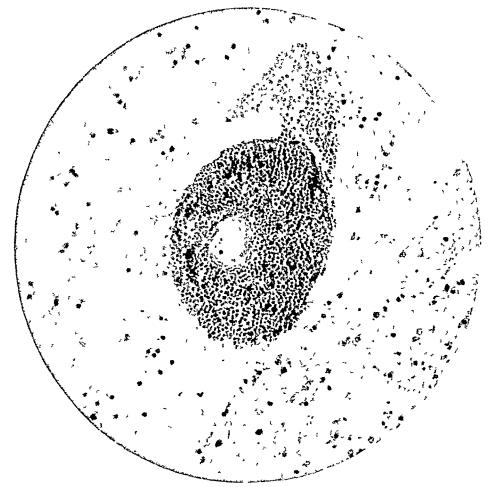


Fig. 3. Capillary ring hemorrhage. Case I.

that the cases can usually be divided into three groups. The first, and probably the largest group, is characterized by the sudden development of focal signs, usually those of a hemiplegia. A second group with meningeal bleeding presents the usual symptoms and signs of subarachnoid hemorrhage. The third group includes instances of coma and convulsions. A fourth group might be added to include those cases which present the syndrome of cerebellar apoplexy. It is of interest that the cause of death in two of our patients (Cases II and V) was a cerebellat hemorrhage.

One of our patients, a boy of twelve years, was admitted to the hospital about a year ago with a history of repeated and persistent nose bleeds of four months' duration. Headache, diplopia, drowsiness, vomiting, and convulsions had been present intermittently for the same length of time. On examination, hemorrhages were seen in the skin and mucous membranes. The blood findings were characteristic of idiopathic purpura hemorrhagica. The neurological examination revealed a sixth nerve palsy. The spinal fluid contained 300 red blood cells per cubic millimeter; the spinal fluid pressure was 240 milli-

meters of water. It was thought that he might have subdural bleeding but several burr holes revealed no evidence of this condition. The following day splenectomy was done. Platelets appeared in the peripheral blood a few hours after operation and the neurological signs promptly improved. Since splenectomy, one year ago, he has remained well, without return of hemorrhagic manifestations or neurological symptoms. This case illustrates the apparent value of splenectomy in the control of the bleeding.

The treatment of the intracranial complications of purpura hemorrhagica is not very satisfactory. As a rule, there is little that can be done to avoid a fatal termination in the apoplectiform type, in which the patient develops sudden and profound symptoms of intracranial hemorrhage. When symptoms are less severe, with evidence of meningeal bleeding or minor focal signs, transfusion and splenectomy may be considered. In several of our patients previous transfusions did not prevent the occurrence of intracranial hemorrhage. Splenectomy was apparently an important factor in the recovery of one patient in whom intracranial bleeding had occurred. It is to be borne in mind that

splenectomy is attended by a very definite risk and that in most types of secondary purpura as well as in some cases of idiopathic purpura hemorrhagica, splenectomy is not effective in controlling the hemorrhagic phenomena.

Conclusions

 Intracranial hemorrhage is the most common cause of death in hemorrhagica.

2. In our series of cases, seven of ten fatalities were due to intracranial bleeding. The clinical and pathologic findings in five autopsied patients are reported.

3. In one patient with intracranial bleeding due to idiopathic purpura hemorrhagica, splenectomy was followed by recovery. STRONG MEMORIAL HOSPITAL

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4. McLean, S., Kreidel, K., and Caffey, J.: J.A.M.A., 98:387, 1932. 5. Gordon, A.: J. Nerv. and Ment. Dis., 50:

6. Longcope, W. T.: M. Clin. North America, 3:279, 1919.

The following lectures are announced by Henry Kendall, M.D., Chairman Program Committee of the National Society for the Advancement of Gastroenterology:

"Deficiency Diseases as We See Them in America," by Professor James S. Mc-Lester. President of the American Medical Association.

"The Importance of Considering the Deficiency Factor in the Treatment of Chronic Gastrointestinal Diseases," by C. L. Hartsock, M.D. Cleveland Clinic, Cleveland, Ohio.

"Statistical Studies of 3000 cases of Chronic Angiocholecystitis," by M. E. Binet, M.D., President, Medical Society of Vichy, Vichy, France.

These lectures will be held on Tuesday evening, January 28th, at 8:30 P.M. at The New York Academy of Medicine, 2 East 103rd Street at Fifth Ave., New York.

The American Board of Opthalmology announces that its 1936 examinations will be held in Kansas City on May 11, at the time of the meeting of the A.M.A., and in New York City in October, at the time of the meeting of the American Academy, All applications and case reports must be filed at least sixty days before date of examination. For information, syllabuses and application forms write at once to Dr. Thomas D. Allen, Assistant Secretary, 122 South Michigan Ave., Chicago, Ill.

A MARTYR TO SCIENCE

On Christmas Day the U. S. Public Health Service recorded on its special honor roll its first woman laboratory technician to die in the line of disease-research duty-Anna Pabst, 39.

Her life was the sixth in the last decade sacrificed to scientific endeavor in the serv-

Miss Pabst was injecting meningitis serum into an animal Dec. 17 in the National Institute of Health laboratories; it moved suddenly, causing some of the culture to squirt in her eye. Although the eye was promptly cleansed, Miss Pabst was stricken with meningitis Dec. 21, while doing Christmas shopping, and died Christmas night in the Emergency Hospital in Washington.

S.I MEDICAL COLLEGE,

THE PROSTATIC PROBLEM

Present Status

HENRY G. BUGBEE, M.D., New York City

The past few years have been momentous ones in the field of prostatic surgery. To those young in this specialty it may appear that an entirely new era has been ushered in with the present wave of transurethral surgery; while, to those who have been active in this field even for the past twenty-five years, the present enthusiasm represents a high state of efficiency founded upon a clarification of underlying principles long recognized, to which has been added the mechanical perfection of instruments, both elements being the result of a slow process of evolution dating back over many decades.

To even begin to cover the subject of the present status of this important problem and lead up to it in a logical manner is quite impossible in the time allotted for this paper, and I shall, therefore, touch upon only a few of the most out-

standing phases.

The frequency with which prostatic pathology is encountered, either in the form of infection, hypertrophy, or neoplasm, the almost inseparable manner in which this ensemble is often present, and the relationship which one or all bear to vesical neck obstruction, renders this subject vital not only to urologists, but to those engaged in all branches of medicine.

The etiology of vasical neck obstruction has always been a subject for profound thought and much discussion. Today there are many hypotheses as to the cause of this exceedingly common phenomenon, but their multiplicity indicates a lack of specific knowledge. That congestion, infection, hyperplasia, neoplasm, senility, and endocrine imbalance must be considered in this regard seems necessary; and the frequency with which all of these elements are apparently involved in a given case renders it impossible to give one factor as of prime importance in considering any large group of cases.

In following a large series of cases over a period of years, I am convinced that infection plays an important role in the etiology of vesical neck obstruction. In this connection, the seminal vesicles play quite as important a part as does the prostate, infections of the vesicles (venereal or pyogenic in origin) often predominating, periprostatitis and perivesiculitis being commonly present, and the individual structures difficult to differentiate. The intimacy of the relation of the vesicles to the trigone, the ready involvement of the submucous glands of the posterior urethra and trigone in this infection, resulting in fibrosis.

Local congestion has always been recognized as a predisposing factor to hyperplasia and neoplastic changes. Continence incident to infection, continence of middle or past middle life leads very definitely to congestion, and is an element which may be elicited from the history in a large percentage of cases of prostatic

hypertrophy.

The histologic study of prostates removed at operation has shown the presence of a definite infection in many instances. Especially has this been true of pieces of tissue removed by resection, many in the early stages of vesical neck obstruction. These same microscopic sections have often revealed, as reported by the pathologist, the presence of hypertrophy as well. Following bladder drainage, a rapid recrudescence in the size of the prostate frequently takes place, revealing the fact that what appeared to be a large hypertrophy with obstruction was actually a congestion. The same phenomenon has been noted following punch operations, with the removal of a comparatively small amount of tissue.

Studies recently carried out by Lower and his associates at the Cleveland Clinic have emphasized the element of endocrine imbalance in the etiology of prostatic hypertrophy, their experiments suggesting a connection between the incidence of prostatic hypertrophy and the influence of the secretion of the hypophysis. Not only do they believe that they have

demonstrated that the secretion of the hypophysis stimulates the output of the testicular hormone "androtin," which in turn results in prostatic hyperplasia, but a second testicular hormone which they have termed "inhibin" is thought to have inhibiting properties over the hypophysis. . The applicability of these data to man is now being made. Recently, cases treated by the administration of inhibin were exhibited at their clinic, the clinical evidence indicating that these patients who had been suffering from prostatic enlargement with residual urine were symptomatically improved and the prostate in each instance was reduced in size.

Teem of the Mayo Clinic has recently carried out an investigation for the purpose of correlating the size of the prostate gland with the microscopic findings in the testis in a large number of postmortem examinations. Of 504 cases, the prostate was found to be normal in 301, hypertrophic in 189, and atrophic in 14. He made the following conclusions:

(1) The average size of the prostate gland progressively increases from birth to old age. (2) The histologic appearance of the interstitial cells of the testis strongly points toward the elaboration of an internal secretion. (3) The tendency for the number of interstitial cells to decrease as the size of the prostate gland increases makes it probable that this secretion is in the nature of an antihormone. (4) Evidence is presented pointing toward the seminiferous tubules as the possible source of the male sex hormone.

Braasch, in discussing this work, observed that the absence of any convincing evidence of increased function in the interstitial cells of the testis, or of diminished function in the tubules during the period of prostatic hyperplasia, gives only negative evidence as to their functional capacity in the secretion of autocoids.

Further applicability of such data to the treatment of clinical cases is being made, and the results will be awaited with

keen interest.

The fear of a radical operation often deterred men of middle life, presenting the earliest symptoms of vesical neck obstruction, from consulting the urologist. The possibility of relieving obstruction in its earlier stages, through less radical procedures, is now resulting in a change of front on the part of both patients and

physicians; more patients are being seen at a time, when, with an elimination of infection, or a reduction in local congestion, a relief of the symptoms frequently results; or, a less radical operation proves to be sufficient to insure a restoration of function, and gives a reasonable assurance of a permanent cure.

A clarification of the pathology of the urinary tract, and a better understanding of the relationship of such pathology to the body as a whole has been personified in the study of prostatic obstruction, a condition once regarded as a localized lesion now being recognized as a cause of far-reaching changes throughout the body. Back pressure upon the kidneys is known to result in a progressive loss of kidney function; an increase in blood pressure and circulatory changes often of a severe grade, with eventually an impairment of practically every body function. When, as invariably occurs, infection is added to this ensemble, sepsis steps in to lower the resistance of the patient and speed up the changes above enumerated.

Such a conception of the pathological syndrome of prostatic obstruction, plus the realization that we were dealing with a disease of advanced years, made it apparent that such patients were exceedingly poor surgical risks, and, if visualized purely from the operative standpoint, a high mortality might be expected.

Kidney function tests, when correlated with the clinical picture, made it possible to obtain an accurate estimate of the variations of renal function which followed the relief of kidney back pressure, and demonstrated the necessity in all cases, of stabilizing kidney function before considering any type of operation for the relief of prostatic obstruction.

The circulatory system became the object of painstaking studies, valuable information being acquired through electrocardiograms and observations of blood pressure. The importance of reducing urinary infection through increased body elimination, catheter drainage, and establishing an immunity on the part of the patient, also became apparent.

With the recognition of the necessity of complete stabilization of the patient before attempting operation, attention became focused upon the technic of prostatectomy, modifications being instituted which would minimize the complications of sepsis, uremia, and hemorrhage, also postoperative incontinence, and fistula.

With these points in mind, the technic of perineal prostatectomy was perfected, the possible advantages over suprapubic operation as then carried out, of better drainage, control of hemorrhage, less shock than associated with abdominal operation, less tendency to uremia, and a lower mortality were stressed by its adherents. The frequent occurrence, however, of incontinence, especially in the hands of those of limited experience, was apparent; and, although adhered to by a few operators, even to the present time, the perineal operation became supplanted by suprapubic prostatectomy as the operation of choice by most urologists, the functional results in the latter operation being more satisfactory in the hands of the majority.

The fact that postoperative reaction was often severe, even after a period of stabilization preliminary to suprapubic prostatectomy, suggested the advisability of carrying out this operation in two stages, the first step being a suprapubic drainage of the bladder, the prostate being removed as a second step (the enucleation being carried out under regional anesthesia and entailing a very slight risk).

The amount of time required to prepare patients under catheter drainage, and again after cystostomy, varied with each individual, a point which could only be ascertained by observing the clinical picture and employing kidney functional tests, the most accurate of which was found to be the rate of excretion of phenolsulphonephthalein. Following such preparation, patients were operated at the height of their functional renal capacity. at a time when infection had been reduced through sufficiently long bladder drainage and an acquired immunity. Hemorrhage then became a rare complication, congestion of the prostate and vesical neck being greatly reduced by the relief of urinary pressure and diminished infection. Bleeding at and subsequent to operation was readily controlled by pressure, and the mortality incident to suprapubic prostatectomy, when executed in this manner, compared favorably with that of perineal prostatectomy; a mortality lower than

that attained in any other class of similar surgical risks. The functional results were excellent, and, furthermore, the frequent occurrence of associated bladder lesions, embracing tumors, diverticulae, and calculi, which could be dealt with at the primary operation, was another strong argument in favor of the two-stage suprapubic operation.

These two methods of prostatectomy, quite different in their technical execution, but based upon the same broad conception of the pathology, underlying surgical principles, and meticulous after-care, have survived to the present time; and, in certain types of hypertrophy, especially well-marked involvement of all the lobes, (particularly of the soft vascular variety), extensive lateral lobe enlargements, or those in which there is a suspicion of malignancy in an otherwise benign hypertrophy, they will not be supplanted by a less radical procedure until, by this latter, equally complete and permanent restoration of function can be assured.

In the type of obstruction due to fibrosis of the prostate and vesical neck, the so-called "median bar obstruction," also obstruction due to hypertrophy limited to the posterior commissure of the prostate, the subcervical gland of Albarran, and the rare hypertrophy of the anterior commissure, as well as an early hypertrophy of a combination of these groups of glands, also early lateral enlargement; a group of cases characterized symptomatically by frequency, diminution in the urinary stream, and often with no residual, or a residual of from one to four ounces, one formerly hesitated to advise prostatectomy.

With these particular types of cases in mind, efforts have been made to relieve the obstruction by excising, transurethrally, a sufficient amount of prostate or of fibrous tissue to completely free the vesical neck. Thus a reversion to the earliest operative procedures for the relief of prostatic obstruction has taken place, and the first conceptions of the possibility of removing obstruction by endoscopic means have been incorporated in modern cystoscopes and endoscopes. The evolution in the development of these instruments has been accompanied by a perfection in generators of electrical cutting and coagulating currents; and as a result we have our present armamentarium in

its high state of utility.

It is not my desire to delve into the history of the development of these instruments, Gutierrez having made a most comprehensive review of the evolution of transurethral surgery in the recent "History of Urology," in which it was interesting to note that the name connected with a certain method of procedure was more often that of the one who popularized it, rather than of the originator of the method. The following notes, however, seem to point to definite periods of transition:

Everard Home, in 1806, first called attention to the presence of a third prostatic lobe which he suggested as giving rise to a valve-like obstruction—the so-called median

lobe hypertrophy.

Guthrie, in 1834, described non-prostatic obstruction of the vesical neck, establishing a differentiation between hypertrophy of the glandular tissue of the median lobe and the "bar at the neck of the bladder," for the relief of which he devised an instrument consisting of a metal tube curved like a No. 20 F. prostatic catheter, carrying at its extremity a small concealed knife, which was made, by means of a spring, to project at the sides, or end, or both.

Mercier followed, bringing out instruments which incorporated the conception of Guthrie,

In 1874, Bottini introduced his galvanocautery, designed not merely to eradicate the small bar obstructions as Mercier had done with his instrument, but capable of producing a deep destruction of lobe hypertrophies.

Albarran, at the turn of the century, gave a new conception of prostatic hypertrophy, describing subcervical glands of the bladder week which could undergo hypertrophy independent of prostatic hypertrophy, and give rise to the same urinary symptoms. With the inception of modern cystoscopes and urethroscopes, direct observation of these conditions became possible.

In 1909, Young introduced the punch operation, a first report of cases operated in this manner being made by him in 1912, and Caulk added heat to the cutting blade to act as an electrocautery for the control

of hemorrhage.

The idea suggested by Beer, in 1910, of destroying bladder tumors by fulguration, was applied by the writer, in 1911, for the destruction of obstructing prostatic tissue. The first eleven cases treated between 1911 and 1913 were reported in 1913; and sub-

sequent series of cases were reported in 1914 and 1917, seventy-six cases being treated in this manner.

Not, however, until generators producing high frequency currents of sufficient potentiality to make it possible, while operating under water, to cut through even the most resistant tissue, and, at the same time, to congulate bleeding points, and the ingenuity of cystoscope manufacturers produced an endoscope through which such currents could be utilized under clear vision, without shortcircuiting, did such operative manipulations become practical and generally adopted. The names of Stern, Davis, and McCarthy have been closely associated with the recent development of this latter type of instrument.

During the early days of the development of punches and endoscopes, the struggle to establish priority in modifications of instruments, high pressure salesmanship in marketing the various instruments and high frequency generators, and arguments as to which type of apparatus and method of operation was most efficacious, assumed such proportions that the real questions at stake—applicability of the method, technic of operation, complications and results—were often forced into the background. During the past year, attention has been more closely focused upon the real issues connected with this intensely interesting surgical field.

When any new operative technic is introduced or popularized, there is an inclination on the part of operators incompetent as regards experience, knowledge, and technical skill, to apply it indiscriminately, and to enthusiastically proclaim its virtues, before allowing sufficient time to clapse to acquire a true perspective, thus comparing progress with end results obtained by older and thoroughly tried methods.

Such a large proportion of men at middle life and after (probably one in five) suffer from some degree of prostatic obstruction, that the thought of obtaining relief without submitting to an open operation has a strong appeal. Many are willing to seek advice with this possibility in mind, and pressure is often brought to bear upon the urologist, by patients, to adopt this method of procedure in all cases. Furthermore, urologists with in-

sufficient surgical training have taken up resection with alacrity, not realizing that more technical skill and a better knowledge of the anatomy and pathology of the deep urethra and vesical neck are necessary to successfully accomplish resections, than were often required in prostatectomy.

As would be expected, complications ensued, poor results were not infrequent, and mortalities resulted. We are only now arriving at a position from which we can begin to make a survey of the situation.

Whether one employ one of the socalled punch instruments, by which pieces of obstructing fibrous tissue or prostate are punched out under direct vision and the bleeding points controlled by diathermy, or a resectoscope, using a mechanically controlled wire loop, by which means cylinders of tissue are resected, as the loop under clear vision is drawn through the obstructing prostate, a coagulating current then being substituted for the cutting current to control the bleeding, the results are probably the same in equally skillful hands.

One might say that resection is the ideal procedure when the obstruction is caused by a minimum amount of tissue, and least desirable in cases of large hypertrophies—whether of one or all lobes. The objective, whatever type of operation is employed, is to completely and permanently remove the obstruction, control hemorrhage and infection, at the same

time preventing uremia.

When infection is pronounced and the prostate is large, soft, and vascular, hemorrhage may be a troublesome complication of resection. There may be extensive sloughing, and several resections may be necessary. Under these conditions, a two-stage prostatectomy seems (with our present knowledge) safer, more complete, and the result is permanent. Furthermore, carcinoma is occasionally found on pathological section in a certain percentage of large hypertrophies-nodules which could not be detected on palpation before operation, being present in the center of the lateral lobes, as in seven cases reported by the writer in 1928, and in six cases encountered since that time, only one of which has since died.

If only one lobe, or sections of large

large hypertrophies, remaining lobes or sections of prostatic tissue may subsequently drop into the vesical orifice and give rise to obstruction. If resection is attempted in these extensive hypertrophies, large portions of the gland should be removed. The permanency of the result in any case depends upon the thoroughness of the resection, and in this type of cases can only be ascertained by observations extending over a period of years.

In outlining the treatment for prostatic obstruction, each case should be advised according to the individual pathology pre-There are a certain number of cases that may be relieved by local treat-Others should undergo a prostatectomy; while probably seventy-five per cent may be cured by resection. If patients are prepared for operation and every precaution is observed to combat the complications of hemorrhage, infection and uremia, the mortality resulting from prostatectomy, or from resection, in the hands of one equally skillful in both types of operation, should be just about the same. Permanency of cure should be assured in radical operation.

Some of the local complications of resection that have been reported have been hemorrhage, burning through the bladder, injury to the external sphincter with resulting incontinence, extensive infection, gangrene of the bladder, urethral stricture, and a recurrence of the obstruction. These complications are largely the results of incompetent operators and improper selection of cases. Similar complications may also be cited following prostatectomy when carried out by unskilled surgeons employing poor judgment and improper

surgical technic.

Patients should be prepared for resection as for prostatectomy; the operation should be carried out under caudal or spinal anesthesia; the vasa should be ligated; the urethra slowly dilated to a sufficient size to accommodate a resectoscope or punch without inflicting traumatism in its passage; cutting should be limited to the area posterior to the verumontanum, and all obstructing tissue should be removed. If the wire loop is employed, a current should be available which will cut cleanly without causing too deep a slough, and one should also

have at hand a coagulating current with which to control hemorrhage, a step that should be carried out thoroughly before completing the operation. Catheter dramage is necessary after operation, until the urine is free of blood, which should be in from twenty-four to forty cight hours. If the patient does not empty the blad der, longer draininge may be necessary, or a repetition of the resection required—all patients being kept under observation and local treatment until a satisfactory function is assured and infection has been controlled.

In ninety per cent of the cases so operated, if properly selected, the immediate results from resection will be highly satisfactory, in many, brilliant, while, in about ten per cent, subsequent treatment will be required to free the patient of infection, and, in a certain number, a second resce Patients undergoing resection are, as a rule, hospitalized for a much shorter time than is required for prostatectomy, with a corresponding economic saving There is very little shock attendant upon the operation, and one does not hesitate to advise a resection in early cases and in very poor surgical risks, when one might hesitate to advise a prostatectomy In one of the writer's cases, a man of ninety three, the patient was out of bed the day following resection

In 1932, the writer, in a paper on the Operative Relief of Prostatic Obstruc tion", reported a series of 233 prostatectomies over a period of eight years, with two mortalities-the 126th and 201st Since April, 1932, there have been twenty seven prostatectomies with no mortality, and 167 resections with two mortalities, of the latter, one was due to septic pneumonia four weeks after opera tion, with complete restoration of blad der function, necropsy in this case showing no obstruction or slough at the vesical neck, but an advanced bilateral pyonephrosis, and bronchopneumonia The second mortality was due to pulmonary embolus seven days after operation, with bladder function restored Both were exceedingly poor surgical risks. There has been no recurrence of obstruction in any of the cases of prostatectomy, and no late recurrence in any of the resection cases

Included in the latter are twenty-three instances of carcinoma with retention. In

every case, function was re-established and great comfort derived from the operation. Two cases have since died of metastasis, twelve and fourteen months after operation.

Resection has been carried out in all types of cases of prostatic obstruction The first few cases of general hypertrophy were operated upon as a trial of the method, and, while no serious complications were encountered, subsequent cases of hypertrophy of an advanced degree involving lateral lobes and commissures, both lateral lobes, or one very large lobe, have by preference been subjected to If large hypertrophies prostatectomy are to be removed by resection, repeated operations are preferable to one prolonged operation, and I still believe that in these cases prostatectomy is the operation of choice

In but one case was postoperative hemorrhage following resection severe enough to necessitate returning the patient to the operating room for further cruterization, and there have been no secondary or delayed hemorrhages, other than a slight bleeding in a few instances, from ten days to three weeks after operation

In many cases there is an infection of the prostate and the seminal vesicles with the obstruction. This infection will occasionally continue after resection and require postoperative care. Infection is the most annoying complication of resection. With the vasa ligated, epididyimits does not occur. Bladder function may be satisfactory at once, but, in some cases, may be delayed, while a second resection may be necessary in a small percentage of cases. Progressive improvement is usually noted even though a slight residual (30 to 60 cc) may be present immediately after operation.

Unquestionably, in resection, a method of procedure has been added to the operative management of prostatic obstruction, which, with its assurance of relief in early cases, its relatively short period of incidental morbidity, and extremely low mortality, will encourage the earliest cases to seek relief before extensive damage has resulted not only to the urmary tract, but to various body functions

In those cases of median bar obstruction, of moderate commissural or subcervical hypertrophies, as well as early small hypertrophies of all lobes, and in carcinoma with retention, resection should give most gratifying results when carried out upon patients carefully prepared as for prostatectomy, and operated upon by one skilled in this branch of surgery, adopting all precautions against hemorrhage and sepsis.

Three cases of median bar obstruction presenting a marked fibrosis of the vesical neck with large amounts of residual urine (35, 58, and 62 ounces) were operated upon in 1924, 1926, and 1930. In each instance, suprapubic drainage was followed by a punch operation which, at that time was thought to be complete. Histologic sections of the tissue removed showed fibrosis with small areas of prostatic hypertrophy. These patients all had residual urine following operation, varying up to seven ounces, and although all were free from catheter life, infection con-Within the past two months, I have done a resection on all three of these cases. In each, no prostatic enlargement could be detected. The tissue removed showed (histologically) as before, a fibrosis, also small areas of prostatic hypertrophy. The cloudy urine has markedly cleared, and there is no frequency or dysuria.

These three cases represent a type in which formerly it has been most difficult to obtain a satisfactory functional result. In the presence of extreme sclerosis of the vesical neck with large amounts of residual, seldom has bladder function been completely restored subsequent to the various open operations that have been employed, or punch operations as formerly carried out. Postoperative retention has been ascribed to atony of the bladder muscle.

Crabtree suggested complete perineal prostatectomy as a cure, anastomosing the severed urethra to the bladder neck. However, a thorough resection of the constricted vesical neck, under clear vision, seems to be an ideal procedure in such cases.

Comparisons of the mortality and morbidity associated with prostatectomy and endoscopic resection can only be made when these operations are carried out upon exactly parallel cases. When one reads reports from certain clinics of series of several hundred cases operated by resection, with no mortality and a very low morbidity, one must realize that many of these cases (probably fifty per cent) are incipient ones, occurring in comparatively young men, excellent surgical risks, presenting few complications—cases which would not have been considered as candidates for prostatectomy, but would formerly have been given local treatment. In this group of cases the mortality should be practically nil and the morbidity low.

This is not an argument against resection; to the contrary, it is in this type of case that resection bids fair to occupy a very important role, by removing the cause of the symptoms in its incipiency before permanent damage has taken place. However, these cases cannot be set up as an argument for resection as opposed

to prostatectomy, in every case.

If, however, one compares mortality, morbidity, and possible complications incident to resection or prostatectomy, when carried out for the relief of prostatic obstruction caused by large vascular hypertrophies, I believe that in the hands of those equally skilled in both operations, the results will vary but slightly in these respects; on the other hand, when the large prostate *is* completely removed, function is restored, is permanent, and infection seldom remains to be a cause for postoperative symptoms.

'The problems involved in the relief of prostatic obstruction are manifold. They require an ability on the part of the urologist to individualize patients; to patiently treat those not requiring operation; to recognize the necessity of thoroughly preparing patients for operation, and to select, without prejudice, the operation best adapted to the individual case. Technical skill in carrying out the operative procedures is a necessity, and conscientious after-care should be continued until the patient has completely recovered.

Patients should no longer hesitate to seek advice with the onset of the first symptoms of vesical neck obstruction, at a time when the cause for such symptoms may possibly be removed either by treatment, or by an operation which involves a slight morbidity and gives an assurance of future comfort. They should also realize that radical operation may, in certain instances, be the more conservative plan of action.

2 EAST 54TH ST.

DEAFNESS

Diagnosis Based Upon Functional Testing

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The justification for attempting to prepare a paper upon so well-known a theme must arise from a desire to present something new or a wish to revive interest in the subject. This latter is my hope Among the younger men and also among many of the older ones, there has been a tendency, either to ignore functional ear testing, or to do it indifferently.

I have been unable to determine whether this situation is the result of poor teaching or due to the feeling that nothing can be done to help those who have a hearing fault (excepting those accounted for by cerumen in the external canal). I believe that both poor teaching and poor prognosis are at fault Certainly, we are not liable, except by chance, to benefit those we think we cannot help. If we do not make careful and accurate functional tests we cannot locate the aural lesion, and if not properly located, it cannot be properly treated.

Prevention plays an exceedingly important part in modern medicine How many of us are careful to follow up with functional testing, until no further improvement can be obtained, our cases of acute catarrhal otitis media with serous exudate, or those of acute suppurative ofitis media, or our cases of acute mastoiditis? Is it not true that many of our cases of deafness give a history of one or the other of these causes which was not followed through with functional tests? Do you not believe that many of these cases of hearing fault could have been avoided by proper follow-up exammations and treatment?

As otologists we have had a wonderful heritage handed down to us by the works and teachings of Von Helmholtz, Von Troltsch, Politzer, Bezold, and many others Aside from their marvelous knowledge of anatomy and pathology and their wide experience, it has always seemed to me that much of their work centered around functional testing. We would do well to follow in their footsteps

In a report by Dr Sonnenschein, chairman of the committee appointed by the Academy of Ophthalmology and Otolaryngology, on standardization of tuning forks and hearing tests, he states

Considerable work has been done with Audiomaters of various types in the past few years. While these instruments are of great value in furnishing Audiograms which give a graphic idea of the state of hearing of the individual, still we feel that they are merely adjuncts to, and cannot as yet replace, the voice, tuning forks, whistles and monocord in functional testing

It is not my purpose in any way to deprecate the use of the audiometer, for I do feel it serves a very useful purpose and that it does give us a fair test as to the quantitative hearing. There are points in diagnosis, however, which are of far greater importance than quantitative hearing If deafness exists, we wish to know what part of the hearing apparatus is at fault, also, we want to know the character of the lesion, as well as the primary cause or the etiological factor. The amount of the hearing is of interest to the patient, and incidentally, to us as otologists, but principally as a measuring stick to determine the changes that come about as the result of the lesson or the improvement that occurs as the result of treatment In compensation cases also, this percentage loss of hearing as shown by the Audiogram is important But the quantitative test does not help us materially in the diagnosis or prognosis of the case

As otologists we are consulted for the purpose of determining if the hearing may be improved or prevented from becoming worse. To do this we must know the location of the hearing fault and it is here that functional testing enters to help us

Bezold states that hearing tests are just as lighly developed and therefore equally as complicated as the functional tests of the eye. He also states we are able to analyze with the continuous series of tuning-forks, the very elements of the organ of hearing. We can diagnose

changes and localize loss of functions in the inner ear just as accurately as we can search the fundus of the eye with the obtthalmoscope.

It is customary to divide the hearing function into a sound conducting and a sound receiving apparatus. The sound conducting apparatus is that part of the ear which is external to the oval window, and includes the footplate of the stapes and the ligamentum annulare, and its function is to transmit the large, slow, and weak movements which are produced in the air by the lower half of the sound scale, smaller but stronger to the column of fluid in the labyrinth. When we have an interference of the sound conducting mechanism, we have in particular, an interference in the lower part of the sound scale. The sound receiving apparatus consists of that part of hearing system internal to the oval window, and its function is the perception of sound. It is possible by functional testing, to determine which one of these two apparatuses is at fault, or to determine if both are at fault. Other tests help us in determining which part of each apparatus is at fault.

Two major difficulties interfere with perfect functional testing; inaccuracy and lack of uniformity of tuning-forks, and noisy examining rooms. Inaccuracy is partly due to unscientific methods of manufacture; it may also be due to corrosion of the metal itself, interfering or changing the tone of the fork. Weighting of the prongs has largely overcome overtones. The ideal fork is made of one piece of rustless metal, light in weight, but accurate as to the number of vibrations. The magnesium alloy forks made by the Riverbank Instrument Company fulfill these requirements. Previously the best forks were those made by Edelman of Munich, and known as the Bezold Edelman forks.

The overtones in these forks have been largely taken care of by making the first overtone the same pitch as the plate tone. Forks should not be electroplated as this interferes with the vibration, and as the plating separates, as it will in time, we again have an inaccuracy of vibrations.

The second objection, that of eliminating the extraneous noises or the production of a sound proof room, can be accom-

plished only by the expenditure of from one to two thousand dollars. However, the building of a soundproof cabinet, large enough and complete for tuning fork examinations, can be accomplished at a small initial expense of one or two hundred dollars.

The manner of using the forks is important. It is better, in testing with forks for the patient's eyes to be closed. In testing for bone conduction, the pressure of the fork should be as nearly equal as possible at all times. There should be nothing intervening between the fork and the skin surface, and as nearly as possible the same point on the skull should be used for the same test in each case. In air conduction testing the fork should be suspended from a point as near the end of the stem as possible, should be held with the broad part of the prong directed to the auditory canal and at a point as near the canal as possible, without in any way touching the skin or hair.

The element of fatigue of the auditory nerve from too constant application of the fork must be avoided if we are to obtain accurate results. To avoid this fatigue the fork should be removed about every two or three seconds and kept away for about the same length of time and then returned. This element of fatigue of the auditory nerve applies to all forms of tuning-fork tests. The manner of agitating the fork is also important.

The methods usually employed are the striking of the lower note forks against the ball of the thumb, and those of the higher vibrations with a small rubber mallet. The examiner can usually tell, by his own ear, if there are any overtones produced, and the testing should be begun when these overtones cease.

The length of time the vibrations are heard is important especially in the Rinné test and should be recorded.

For ordinary office practice a quite sufficient armamentarium of forks consists of two small A1 forks, one small C4, one large C1 and a large A fork. The small C4 and small A1 forks give us a very fair test of the high notes while the large C1 fork tells us fairly accurately about the low notes. I use the large A fork for Schwabach, Gelle, Weber, and Politzer; the small A1 forks for Rinné and Stenger.

the acute stage of multiple sclerosis and pointed out that intermediary forms occur frequently. Furthermore, pathological examination of chronic cases reveals frequently the presence of some "early patches" scattered among the foci of dense sclerosis. A few years later (1913) Frankel and Jakob³² added new evidence to Marburg's conception on the basis of their own cases. They felt that the differences between acute and chronic multiple sclerosis are precisely those which separate a chronic from an acute condition, namely, "differences in intensity and tempo of the process." Oppenheim³³ (1914) set the seal of his authority upon Marburg's conceptions and since then numerous clinical pathological reports have substantiated the existence of an acute form of multiple sclerosis: Jakob10 (1916), Spiller³⁴ (1919), Ronne and Wimmer,³⁵ Creutzfeld³⁶ (1923), Marquezy³⁷ (1927), Pette^{38, 39, 40} (1928), Guillain and Alajouanine41 (1928), Cour-(1930), Ley and Bogaert¹³ (1931), Toyama44 (1931), Reuter and Gaupp45 (1932), Denime,46 Austregesilo47 (1933), Urechia and Elekes48 (1933),

Obviously as Pette noted, it is not correct in acute cases to speak of "sclerosis" in the anatomical sense of the word, since a sclerotic overgrowth of glia fibrils does not occur. But such a sclerosis implies a previous lesion which constitutes precisely the pathological basis of the acute form of multiple sclerosis. The existence of such a condition seems therefore strongly established, though not of a common occurrence. In more frequent instances the acute form constitutes either the beginning or episodical relapses occurring in typical chronic cases. All gradations between acute and chronic forms may be observed clinically. Pathologically variations involve the fat products which are more or less abundant and the glia fibrillary overgrowth which is more or less intense.

In our case, multiple sclerosis was not thought out as a clinical diagnosis because of the absence of the main symptoms of this disease. Probably also some of the findings which would have been interpreted in favor of multiple sclerosis could not be evaluated because the patient was in poor condition and unable to cooperate.

From the pathological standpoint, however, when we consider the main characteristic of the small patches, namely destruction of myelin sheaths, with relative integrity of the axis cylinders, severe cellular glia reaction, perivascular infiltration, distribution of the foci in the gray and white matter with preference for the latter, diffuse involvement of the medulla, pons and midbrain, we might be justified in considering such lesions as "early patches" of acute multiple sclerosis.

4. A last diagnostic possibility to be taken into consideration in our case is "acute disseminated encephalomyelitis." The occurrence of such acute forms has long been recognized (Westphal, Strumpell, Oppenheim, P. Marie) and in 1912 a complete study was offered by Anton and Wohlwill.10 It is, however, within the last few years that numerous cases of acute spontaneous encephalomyelitis have occurred in various countries. Pette 39 in Germany, Redlich 50 in Austria, Flatau 51 in Poland, Brain,52,53 and MacAlpine 51 in England, Spiller, 55 Grinker and Bassoe,50 Stout and Kamosh 57 in the United States are among the authors who observed the largest number of cases. The symptomatology is protean. In the spinal type motor weakness of flaccid or spastic type, sensory changes, and sphincter disturbances are common signs. Dysarthria, aphonia, dysphagia, and nystagmus have been repeatedly noted indicating involvement of the brain stem. In the cerebral type the symptomatology supplies mental signs such as confusion, disorientation, delirium, stupor and focal cortical signs such as hemiplegia, hemianopsia, and aphasia Convulsions and meningitic manifestations occur frequently in children. The course is rapid, the appearance of symptoms abrupt, and the mortality low; complete recovery is frequent. In some instances, (MacAlpine). may remain sequelae Recently, Stout and Kamosh,57 reviewing the clinical symptomatology of twentyeight personal cases have stressed the importance of remissive and relapsing features. The pathology of the condition consists of disseminated lesions equally scattered in the gray and white matter of brain and spinal cord. Such lesions, in which myelin and axis cylinder destruction takes place with varying intensity, are generally related to blood vessels.

Perivascular cellular infiltration of the socalled hematogenous type is generally present pointing to the inflammatory nature of the disease.

Difficult questions arise when the relationship between acute multiple sclerosis and acute dissemmated encephalomyelitis is discussed. Are the two conditions separable? If affirmative, upon what criteria? The discordant answers one finds in the recent literature point out at best the difficulty of giving an answer Redheh 50 demes that his cases of acute encephalomyelitis belong to the disseminated sclerosis, although when speaking of differential diagnosis between the two conditions he discusses only clinical differential data. Although recognizing that the two diseases in their acute phases and m their sequelae are quite alike, Mac Alome's suggests that the two conditions differ in their pathological process Prac tically, however, he only gives clinical differential symptoms which are different from those given by Redlich Clinical features such as suddenness and gravity of onset, frequency of psychotic and extrapyramidal symptoms and peculiarities of the evolutions are also stressed by Del-becke and Bogaert * in order to clinically differentiate the two conditions Cournand,42 on the other hand, insists precisely on clinical data to support the identity of acute multiple sclerosis and acute encephalomyelitis Gerstamann 50 and Hallervorden 60 add several pathological features to the differential diagnosis, among them, relation of the patches to blood vessels in acute encephalomyelitis, numerous perivascular infiltrations, involvement of axis cylinders, acute myelin destruction, degenerative forms of protoplasmatic gha

On the other hand, Pette 10 40 in a series of investigations based upon numer ous cases which constitute clinical and pathologic gradations between multiple sclerosis and disseminated en cephalomyelitis (in the sense of Redlich) strongly supports the fundamental identity between the two conditions Basing their conclusions on the pathological findings, other authors including Spatz, at Jakob, Spiller and Marcus, 2 Urechia, Dennine, etc, feel it impossible to consider their cases of acute encephalomyelitis and multiple sclerosis to be other than varie-

ties of the same fundamental process It is difficult therefore to draw definite conclusions from such discordant view-

points

Now what elements does the study of our cases contribute to this discussion? From the histopathological standpoint, we have observed both typical "early patches" of so-called acute multiple selerosis, and also foci showing features which, according to some authors are characteristic for acute encephalomyelitis namely, (a) relation of the foci to blood vessels, (b) involvement of both myelin sheaths and axis cylinders, (c) intense perivascular infiltration

Must we now accept the three last mentioned features as characteristic for acute encephalomy elitis?

(a) In typical cases of multiple sclerosis the relationship of the patches to blood vessels has been a matter of much controversy Among the recent authors, Hassin 62 denies a vascular dependency of the patches and Falkievicz 44 concluding his study of numerous cases, states that "it is a rare occurrence that a true topographical relation exists between focus and blood vessel even in the sense that the focus extends within the area of distribution of the blood vessel occasionally seen occupying the focus" Wohlwill 65 stresses an opposite conception He notes that in the spinal cord there are two types of patches, the wedge-shaped one ind the round one, exactly corresponding to the distribution of the transverse and perpendicular branches of the lateral vessels of the cord In the basal ganglia and centrum ovale the patches appear to begin as perivascular foci and later fuse into irregular areas. In the costex the superficial patches are wedged or arched-shaped corresponding to the areas of supply of the superficial vessel of the cortex Guillain Hallervorden and Spatz confirm such facts In our case, the foci at times coincided or were within the area of distribution of a blood vessel at other times appearing completely independent. Thus this criterion does not seem to be quite decisive in the labeling of the pathological process

(b) Charcot's dogma of the "axo myelinic dissociation" in multiple sclerosis, already shaken by the investigation of Doimkow (1915), Jakob (1923) Marinesco (1924) has been extensively criticized by Jaburek 60 This investigator basing his findings on a systematic study of six chronic cases of multiple sclerosis describes, besides old sclerotic patches with axis cylinders almost intact, patches in which the axis cylinders

undergo severe regressive changes showing irregularity in their impregnation, diffuse or localized swelling and granular disintegration.

Such findings cast, therefore, enough doubt upon the differential value of the involvement of the axis cylinder in acute encephalomyelitis. In our case, foci with intact axis cylinders were found nearby patches in which severe alteration of both myelin sheaths and axis cylinders occurred.

(c) The difficulty of interpreting perivascular infiltrations may be well exemplified by our case. We found, in fact, at times, lymphocytes and plasma cells, i.e., elements of so-called hematogenous origin as the only constituents of the perivascular infiltration. At others, gitter cells were the fundamental elements and at others finally both gitter cells and hematogenous cells were found surrounding the blood vessel.

Is the hematogenous infiltration when present, dependent in our case upon the abnormal products of disintegration of the tissue or is it the expression of the reaction to an infectious agent? In other words, are we dealing here with a symptomatic type of inflammation or with a primary one? The question is easier to put than to resolve. The criteria as given by Jakob,67 Spatz,61 Wohlwill,68 etc., in such instances are merely quantitative, based essentially upon the rather subjective judgment of the amount of hematogenous perivascular changes in comparison to the amount of "Abbau" products. Spielmeyer 69 adds the criterion based upon the time relationship between the two processes, although the evaluation of the "tempo" factor is quite difficult in a pathological examination.

In our case, the intensity of the infiltrations, their occurrence also outside the patches of demyelinization, the disproportion between the severity of the process of demyelinization and the intensity of vascular reaction (marked infiltrations being seen in small patches), are all elements which seem to speak for a primary vascular reaction.

However, a primary vascular reaction is not characteristic of acute encephalomyelitis as in multiple sclerosis. Many recent workers (Siemerling and Raecke, ⁷⁰ Guillain, Pette, ³⁹ Birley and Dudgeon, ⁷¹ Symonds, ⁷² Maeder, ⁷³ have stressed the perivascular infiltration as almost conclusive evidence of the infective nature of multiple sclerosis.

Concluding, pathological features characteristic of diffuse sclerosis, concentric sclerosis, acute multiple sclerosis, and disseminated encephalomyelitis are gathered together in our case. This we feel might constitute a support for the essential identity of the above mentioned demyelinizing processes. In other words such conditions might constitute nosologically a group of processes at times disclosing from a clinical viewpoint poorly defined clinical boundaries but possessing the same fundamental pathology. The similarity of pathological features does not justify, however, the conclusion of an identity of etiological agents. It is probable that different etiologic factors may produce the same pathologic picture, the nervous system reacting in fact but in a limited manner to different agents so that the number of pathological syndromes is forcibly scanty (Spielmeyer). As a matter of fact the experimental pathology has already brought elements of considerable interest to the question of etiology of demyelinizing processes. With different substances such as tetanus toxin (Claude,74 Putmann, Kenna, and Morrison⁷⁵), toxin of Asperigillis fumigatus (Ceni and Besta⁷⁶), peptones (Buscaino77), saponine (Donaggio78), vinila-(Luzzato and Levi79), carbon monoxide (Meyer⁸⁰ and Putnam⁸¹), bile (Weil and Crandall⁸²), potassium cyanide (Ferraro⁸³ and Rubino⁸⁴), it has been possible to determine areas of demyelinization and at times glial reaction that recalls the pathological features of disseminated and of diffuse sclerosis.

In our case, the etiology of the condition could not be determined. A careful search failed to reveal a living agent. We were able to detect a certain amount of Steiner's argentophilic cells. It is difficult as yet to estimate the importance of such a finding. According to Steiner steels are found only in luetic processes of the nervous system and in multiple sclerosis. This has been confirmed by Rogers and Kopeloff. That they are expressions of a spirochetic origin of the process, as Steiner claimed, we have no proof.

The finding of a generalized miliary tuberculosis in our case leads one to the hypothesis that tubercular toxins might have been at the base of the demyelinizing

process These would agree with the concentric aspect of demyelinization which has been recently referred by Hallervorden and Spatz as being due to diffusion of a toxic agent throughout the nervous tissue in accord with physicochemical principles

Summary

1 The authors report a case of acute demyelmizing encephalomyelitis characterized pathologically by a Two large diffuse symmetrical foci of demyelinization in the medullary substance of the cerebral hemispheres, comparable to the diffuse foci described in sclerosis b Several areas of concentric demyelinization, i.e., comparable to the one described in the so-called concentric sclerosis c Numerous small patches of demyelinization scattered throughout the cerebral hemisphere, the basal ganglia, the pons, and the medulla oblongata and comparable to the ones described in acute multiple 4 lerosis

2 The authors stress the importance of the association in their case of clinical and pathological features of diffuse sclerosis, concentric sclerosis, acute multiple sclerosis, and disseminated encephalony clitis

3 A brief account of the opinions of various authors as to the relationship of the above mentioned conditions is given and the belief is expressed that diffuse sclerosis, concentric sclerosis, acute multiple sclerosis, and disseminated encephalomyelitis might constitute a large nosological group with identical underly-

ing clinical and pathological findings

4 The question whether the same etiological factors are at the base of the various conditions mentioned is not ready for solution Some experimental data, however, point to the fact that in the nervous system dıfferent etiological factors may produce pathological changes common to acute encephalomyelitis, multiple sclerosis and diffuse sclerosis

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SCIENTIFIC EXHIBIT SPACE

Notice has been received from the Committee on Arrangements for the coming annual meeting of the Medical Society of the State of New York that all available scientific exhibit space has been assigned.

Pictures that are overdrawn are caricatures or cartoons, but we get many a hearty laugh from them, and it is more than likely that Dr. J. P. Warbasse chuckled as he wrote this catalogue of various kinds of doctors in his book on "The Doctor and the Public," published by Paul B. Hoeber. He

"Some doctors come plunging into the chamber of the sick like a fireman about to extinguish a conflagration; they alarm the patient. Some come like a detective looking for a criminal, and give the patient cold creeps. Others enter stealthily like a cat stalking a bird, and are beside the patient and pounce upon the pulse before any one is aware; they fill the patient with a weird sense of the chase. There is a class that come like purring doves, as though they would make love; they are thought nice by sentimental ladies. There are the doctors with the doleful faces, like the hired mourners who follow the catafalque; if the patient is bad they make him worse; if he is not they cause him to smile. A common lot enter like the monologue artist on the vaudeville stage and start a barrage of wisecracks that entertain the nurse and amuse themselves, while the patient waits for business to begin. Then there is the radiant doctor who has studied how to impress himself upon others and fill the room with the effulgent aura of his personality; he impresses only the weak-minded. There is the pompous doctor of the school of hope, who, comes with a strong expression and eyes beaming with glad tidings; he scares the demon of disease, and makes the patient fearful of the size of the doctor's bill. Some doctors enter in a casual way, apparently unconscious of the patient's presence, and talk about the weather or the fire, while the patient longs for succor. The egotistic kind first must tell how busy they are and how little sleep they snatch between the rings of the telephone, how fast they have to drive to reach the outposts of disease, and how extraordinary are the cures they make; these give comfort to some, but mostly to themselves. There is the stumbling lout, whose bag upsets the vase of flowers, and who sets his bulky hulk upon the bed; the patient forgives much in the hope that the doctor is mighty also in healing power. The business-man physician whose manners smack of the marts of trade, smart, abrupt, and dapper, impresses the patient that he is attending a board meeting and wants the minutes read at once; the patient wishes he were more sympathetic. And then comes the doctor of mystery, all quiet and sedate, with soft voice, and furtive words, and sanctimonious manner; the patient, if of the susceptible type, thinks of wonders and of miracles.

"When the patients do well under their administrations, which in nine cases out of ten they do, each of these peculiarities becomes glorified into a healing virtue, and the doctor goes on cultivating his idiosyncrasy. The vast number of highly qualified physicians come under none of these classifications. Most physicians are just plain doctors. They may be tinctured with some of these traits, but not enough to matter. They exemplify good bedside manners. They possess unbanity; it is obvious that they are gentlemen; they do and say the thing that is fitting; they go about their business with dignity, directness, and despatch; it is clear that they have the matter in hand; and then, when they have finished, they say the few words that indicate sympathy and understanding, and quietly take their leave."

OBSERVATIONS OF THE CLINICAL COURSE OF ARTERIOSCLEROTIC AURICULAR FIBRILLATION

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and
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A study has been made of sixty-nine patients with fibrillation of apparent arteriosclerotic etiology who had been observed in practice. Some of these have been followed for periods covering from

five to twenty years.

In the selection of this group for study no patient was included where there was any history of symptomatology suggesting rheumatic fever or where there was any clinical evidence of mitral stenosis. Any example of thyroid disease was excluded. In addition a small number was excluded where chest trauma had apparently played a part in the onset of auricular fibrillation. In spite of this, the question arises whether it is better to call this type of fibrillation, "non-rheumatic," rather than arteriosclerotic, as has been mentioned by Cookson 1 and others. (If one uses the term, "non-rheumatic" fibrillation, examples of thyroid disease would have to be included.) All in this small group, however, had some clinical evidence of arteriosclerosis present as shown by observations on the peripheral or retinal vessels.

The diagnosis of auricular fibrillation was confirmed by electrocardiograms in every case; in a large number of cases electrocardiographic observations were repeated over a period of years.

It seemed desirable to further subdivide arteriosclerotic auricular fibrillation into groups associated with and without hypertension. Arbitrarily, those having a diastolic pressure of 100 or over were considered hypertensive. It is wellknown, too, that the measurement of blood pressure in auricular fibrillation is often difficult. In a large number recording blood pressure apparatus was used to check observations made with the mercurial manometer.

The group was further subdivided into those with paroxysmal and chronic fibrillation.

Age. The average age of this group when first seen by us was sixty-one years; the youngest in the series was forty-six, the oldest eighty-five. This did not always correspond to the age of onset as a number had been fibrillating before appearing in the office. Every observer trying to study a group of fibrillating patients has also been. impressed with the difficulty of determining the exact onset of fibrillation.2,3 Although the onset can be noted in a small number, one can only give statistics with regard to fibrillation as determined by the time when the diagnosis was made and confirmed by the electrocardiograph. In those patients in which hypertension was present, of which there were twenty-nine (12 females and 17 males) the average age for both male and female was sixty-two years. In those in which hypertension was not present, of which there were forty (12 females and 28 males), the average age of both sexes was fifty-six years; that of the male, fiftyfour years and of the female, sixty years.

Sex. Of the entire group there were forty-five males and twenty-four females. It does seem to us that arteriosclerotic auricular fibrillation is more frequent in the male though other factors may be taken into consideration.

We found that there were twenty-eight males and twelve females where hypertension was not present. In the hypertensive group there were seventeen males and twelve females. Although there is some difference of opinion in which sex hypertension is found more frequently, most authors state that essential hypertension is more commonly found in the female.⁷

Habitus: Type of Individual. In observing these patients with arteriosclerotic auricular fibrillation a large number were obese. Taking the group as a whole, forty-three (32 males and 11 females) were obese out of a total of sixty-nine. The high percentage of patients with obesity in heart disease in general accounts for the large number of obese patients with auricular fibrillation.

Symptomatology. Practically all these patients (either hypertensive or nonhypertensive) with auricular fibrillation complained of some rather definite symptoms at

the time they were first observed. The most prominent symptom noted by us in observing these patients with auricular fibrillation was dyspnea on exertion. There were fitty-two of our group of sixty-nine who complained of this symptom at some time or other while we were studying their condition.

It is easy to conceive that this group of arteriosclerotic auricular fibrillation may often be asymptomatic; yet in the observation of these cases, this did not seem to be true. In a number, symptoms were not produced except by some reason which in all probability increased the ventricular rate.

It has been noted by many observing the course of auricular fibrillation that patients quite frequently describe a consciousness of their irregular hearts. In our observations some of the following rather dramatic remarks were made by these patients: "If I overdo, my heart balks," or, "I feel as if my heart is running over if I exert myself." The complaint of fatigue without exertion was often present. We also noted that in a large number of these patients associated gastrointestinal complaints were present, for example: flatulence and constipation. In an occasional case, where we had a definite history of the onset, symptomatology closely resembled that of paroxysmal tachycardia.

Although it is commonly stated that cardiac pain is frequently absent in patients with auricular fibrillation, the following facts were noted in our group of patients:

In the entire group we were able to ascertain that there were eight where the pain was present and definitely related to exertion. We excluded what might be termed vague discomfort in the chest, and each of these eight patients had definite pain which might well be considered a typically anginal syndrome. One hypertensive male had definite anginal pain in attacks, another hypertensive female had pain on exertion and emotional strain, and yet another in the hypertensive group, a female, had pain also on exertion. Two nonhypertensive males had pain on exertion, one nonhypertensive male had pain on walking, one nonhypertensive female (paroxysmal type) had definite pain in the throat accompanying palpitation, and yet another nonhypertensive female could not walk against the wind without precordial pain.

If the symptomatology of patients with fibrillation is more carefully analyzed, it will be found that pain is more frequently present than usually supposed heretofore.

Electrocardiographic Observations

These electrocardiograms were taken

from 1917 to 1934, inclusive, and revealed the following facts:

T Wave. We did not consider observations of the T wave of any importance on account of the probability of deformity by digitalis, together with difficulty of interpretation on account of the superimposed fibrillary waves.

QRS Aberrant Ventricular Complexes. In four cases aberrant ventricular complexes were noted, the details of which are as follows: One left bundle branch block, two where the QRS exceeded 0.1 of a second, and one where the QRS was widened and of low amplitude. There were therefore two cases where there was definite bundle branch block associated with auricular fibrillation and one case of so-called arborization block.

Premature Contractions. In the sixty-nine cases studied premature contractions were present in eight hypertensive cases and thirteen nonhypertensive cases. Here again we can only be very guarded as to their significance on account of the fact that the vast majority of these patients received digitalis.

Amplitude of Fibrillation Waves. It has been stated that fibrillary waves wherever noted in the limb leads are smaller in the nonrheumatic than in the rheumatic group. Our belief is that the fibrillary waves noted in auricular fibrillation (nonrheumatic) are of smaller amplitude than in rheumatic fibrillation. In this nonrheumatic group, we merely noted whether the fibrillation appeared to be fine or coarse; there were briefly; coarse, twenty; fine, forty-nine.

Digitalis. Of the entire group, sixty-one received digitalis in some form or other. The maintenance dosage found most useful in the larger group of patients was ½ grain t.i.d.; thirty-two received this amount and the ventricular rate was controlled satisfactorily on this dosage (the powdered leaf) and they were able to pursue their normal activity.

Of particular interest were the eight patients where digitalis was not used. These patients received no digitalis at all, their ventricular rate being satisfactory, and their symptoms being controlled without digitalis. It seemed to be wise not to give digitalis to these patients for the following reasons. One case, because of marked bundle branch block, another paroxysmal case received none, and six patients because their ventricular rates were satisfactory.

Activity. With regard to the activity of these patients, they were cared for as ambulatory patients pursuing their ordinary habits of life, and were encouraged to take a moderate amount of exercise within their

capacity. In a number the fibrillation does not interfere with unusual activity. Golf can be played by some, a number can walk several miles a day without discomfort, one male married at seventy-six years (after fibrillating for eight years), and then lived to be eighty.

With regard to activity, the most important point is the control of the ventricular

Occurrence of Embolism. In the entire series, hemiplegia occurred in six examples, all of which were males (4 hypertensive and 2 nonhypertensive). It is difficult to be certain whether the hemiplegia was embolic or due to a cerebral endarteritis. It is quite probable there were other emboli which missed observation, the brain being the place where the occurrence is least likely to be overlooked.

Taking the hypentension factor into consideration in our observation of these examples, it is our opinion that embolism is rather rare.

Syphilis. The question of syphilis was analyzed. In two nonhypertensive males there was a rather definite history of a syphilitic infection, but only in one, a hypertensive female, was there a positive Wassermann present and there was apparently no etiological relationship between the auricular fibrillation and the specific infection although difficult to prove.

Relation to Bacterial Endocarditis. In our follow-up of this group, no case of auricular fibrillation which we had observed had developed infective endocarditis.

Sudden Death. Although it has been stated that sudden death is not uncommon in auricular fibrillation,10 in our group sudden death occurred only three times, all in nonhypertensive patients, two males and one female.

CASE 1. An obese female, aged fifty years, dropped dead twelve days after examination while going up the elevated railway stairs. She gave a history of attacks of precordial pain for three years previous to examination. Three months before her death, she experienced difficulty in getting her breath without apparent reason, accompanied by radiating pain in chest and left shoulder, especially at night. The patient was taking ½ grain digitalis t.i.d.

Case 2. An obese, alcoholic male, aged fifty-one years, died five months after examination while engaged in public speaking. Digitalis was being used, dosage ½ grain

Case 3. An obese male, aged sixty years, died suddenly three years after examination (on arrival home from a trip) of what was called "acute indigestion." Patient received digitalis grain ½ t.i.d.

Duration and Mortality

An analysis of the duration of life of these patients with arteriosclerotic auricular fibrillation was made on the hypertensive and nonhypertensive groups, and brought out the following facts:

Of the whole group of sixty-nine, there are twenty-seven alive, thirty-four dead and eight with follow-up impossible.

Twelve females lived five to twenty years after the onset of fibrillation (4) still alive); twenty-five males lived five to sixteen years after onset of fibrillation (7 still alive); and more than half of the entire group lived more than five years. The fact was also noted that, for some reason or other, if these patients lived more than five years with auricular fibrillation, they seemed to live a considerable time longer.

Subdividing the series into hypertensive and nonhypertensive patients with reference to duration, it is revealed that in the hypertensive group of twenty-nine there are twelve living, thirteen dead, and four with follow-up impossible, of which nineteen lived five to twenty years and ten lived one to five years. In the nonhypertensive group of forty, there are fifteen alive, twenty-one dead and four impossible to follow up, of which nineteen lived five to eighteen years, and twenty-one lived one to five years.

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THE PRACTICAL MANAGEMENT OF DERMATITIS WITH AN ALLERGIC ETIOLOGY

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In the field of dermatology diagnosis is in most cases directly definite, and the treatment following usually practical for relief and cure. But the view is often expressed by the general group of the practitioners in medicine that our record in the treatment of the various sensitized inflammations of the skin is rather spotty and unsatisfactory. The public also is imbued with this opinion and is inclined to turn to the allergist for that information and help which properly ought to be given by the allergist to the practicing dermatologist. Continued studies of allergic phenomena are necessary to improve our practical therapeutic methods. As a result of much careful observation by keen workers it appears that we are fairly well agreed how to broadly define allergy, but a practical evaluation of the manifestations of allergic phenomena will require a more clear understanding of the subject.

The cases in our series from which these observations and impressions have been made are those simply in which it appeared that there was some alteration of tissue reaction, allowing a dermatitis to develop. The word "allow" is used advisedly. They include contact dermatitis to the point where we were confused as to whether or not we were dealing with a caustic dermatitis venenata. It appears reasonably enough that allergic phenomena are so common that in many cases they might be considered practically physiological variations. Vaughan1 mentions allergy as a pathologic exaggeration of a normal physiologic response and asks the question, IV hy do not all individuals manifest allergy? It occurs to us that it is quite possible all do. It also appears that the chance and the time for the development of an allergic reaction is dependent on many factors, modified by conditions in some cases well understood, and by some which are not really understood

at all. But it is the patient that has our manifest and most compelling interest,—it is the patient I am especially thinking of in this paper on managing a dermatitis associated with an allergic etiology.

The allergic patient must find it possible to give a careful and thoughtful history. It requires the personal and individual attention of the physician. It requires judicious interrogation by one with clinical experience in the subject. Dermatologists have long expressed their views on the misleading aspects of the history. Here again it is most important not to jump to conclusions. Opinions positively, prematurely, and often erroneously expressed on etiology and prognosis based on the history of the case, often cause an early loss of confidence on the part of the patient. Too often a suggestion causes the patient to color the history. More important than this is to guard against positive statements based on a negative or positive, scratch, intracutaneous or patch test.

An adult female patient presents a spreading dermatitis originating on the face and neck. She has a primrose in her home; her patch test to this is positive; her scratch test to egg is likewise positive; she uses a stimulating hair lotion whose patch test is negative, but the eruption began soon after the patient began to use the scalp application. What caused the trouble? And what do we conclude, when the dermatitis continues to spread in aggravated form for some indefinite time after all the above causes have been withdrawn? Possibly the real cause is orris root, cold cream, white gold, fur, possibly a group food sensitivity. possibly infection, possibly some hereditary and more inaccessible allergic etiology.

In many of our cases we never have determined the real cause of the trouble. Here of course, we need a careful and thorough allergic investigation. But during the acute stages of inflammation this may aggravate the condition. For various reasons the patient wishes to defer the investigation. But she does not want to defer measures for prompt relief of the distressing symptoms. It may be that delay in treatment may convert a minor allergy into a major one. This may also happen from stimulating and irritating treatment. For instance we believe that severe sensitized dermatitis may follow over treatment of scabies.

This patient will do best with rest in bed, at least, with a minimum of physical exercise. This will temporarily eliminate occupation, certain clothing, cosmetic preparations on contacts, influence of sun and wind, heat and cold, outdoor dusts, animals, and some plant pollens from the etiology, and make for a more stable vasomotor function. We can eliminate feather pillows, wood, plants, and dust from the room. The patient may here avoid contact on scalp, face, body with soap and with cosmetics of all kinds. We may eliminate egg, wheat, milk, veal, pork from the diet. We may set up a limited elimination diet of say ten nourishing foods following the elimination methods of Rowe.2 These few foods and their groups may be tested by scratch tests and those found negative tested intra-cutaneously. Positives are eliminated from the diet. If the negatives are false the limited variety of the diet minimizes the chance of error. A recheck may be warranted. We have found variations in a repetition of the scratch test but seldom a marked positive reaction to intracutaneous test following a negative report. We do not feel that a routine complete food sensitization examination is called for at this time in this kind of case. We should investigate the possibility of infection. The procedure is essentially one of elimination. To quiet the vasomotor irritability is of paramount importance. So many cases of acute dermatitis are ambulatory for weeks and months, their inflammations spreading, their suffering becoming more acute, their illness gradually changing into a chronic and serious major dermatitis, when a short period of rest and soothing treatment at the onset would soon result in symptomatic cure. Patients with dermatitis ought to be regarded as sick before they reach the stage of dermatitis exfoliativa. Our experience impresses us with the number of mild cases of allergic

dermatitis of all kinds which are allowed to go to an unwarranted point of severity merely because the physician is looking only at the allergic etiology of his problem. This is unfair to the allergist, to the dermatologist, and most important of all to the patient.

The inflamed skin in our patient is hot, red and engorged. An application of even the blandest oil or ointment will hold in the heat, increase the distressing vasomotor dilatation, and the film of oil will hold in the serous or purulent discharge and prevent drainage from the skin. A cool continuous wet dressing properly applied will relieve most quickly and also has the best curative action. We prefer to use half saturated boric acid solution. An astringent lotion may act well but it should not contain any antipruritic agent, or it may cause a burning sensation. There may be an allergic response to this. A negative patch test of a therapeutic application may be helpful but the normal skin may not react where the inflamed skin will. A lotion of twenty per cent bismuth subcarbonate in water is mildly astringent, soothing, and in our experience safer than that of zinc oxide. In reactions associated with urticaria, calcium internally may be of value. Some cases will benefit from regular colonic irrigations even where the prime etiology was not internal. This procedure sometimes is of value in chronic cases. With the above practical and simple measures augmented by attention to specific demands and details most patients will make a symptomatic recovery. Confidence will be established so that a more exhaustive and efficient research may be made.

When the patient cannot or will not remain indoors the same methods of elimination ought to be carried out as far as possible. If the disorder is occupational a temporary vacation or a change in the character of work is indicated. There are cases in which the sufferer cannot remain in the building, especially a factory, in which the allergic dermatitis developed. Do not advise a person to give up a life's vocation at the first visit. He will first give up his physician. Our analysis impresses us with the number of cases of occupational dermatitis, which have become susceptible to an allergic contact dermatitis because of a departure

from normal of the skin structure. The worker with the dry skin, with fissuring and so called chapping, with sweat gland disturbance, with certain illnesses including endocrine disturbance is the most susceptible The climate, especially cold, may have an influence A man at work comes in contact with the same chemicals for years without trouble. The day comes when he washes his hands with a highly caustic soap From then on he develops an occupational dermatitis even though he never uses the soap again Improperly drying the hands after washing may lead to a fissuring dermatitis. Much may be done to prevent occupational contact dermatitis, especially a localized allergy, based on the fact that the normal skin is the least apt to develop trouble. Such a simple thing as the use of a cake of cocoa butter on the hands a few times daily may restore the dry fissured irritable skin to normal, and prevent more trouble The worker must not be care less and unclean

With care and patience many of the acute cases of allergic derinatrits will have their etiology discovered Some will get well and stry well on symptomatic treatment alone even though we do not make an etiologic diagnosis Because of our inadequateness, sometimes because of lack of cooperation on the part of the patient, and often from various other causes, it is our experience that many of the acute cases become chronic A few points may help to take care of this situation

The frankly allergic such as the eczematous asthmatics often have a dry skin Attention to this does much for the patient even where the allergy and the asthma continue to be outspoken. It takes a great deal of oil applied for months to soften this kind of skin Oil to the skin on going to bed warms the skin and causes intolerable itching, therefore oily preparations should be used during the day and a simple powdery lotion at night There is no doubt that some cases of this kind respond to thyroid More endocrine knowledge may help in this problem 3 The asthmatic eczema case may be helped a great deal by proper care of the skin He is entitled to more thought than that on allergy alone

Patients with areas of indurated skin as

in neurodermite will have relief from x ray. The benchcial effects of this in long standing cases may cause the patient to seek so much x-ray that finally atrophic disturbances arise. It is interesting to note how well crude coal tar acts in most cases of chronic dermatitis. We use a crude coal tar obtained from the gas works and it is made to consist of sixty per cent distillate and forty per cent pitch Every effort should be made to have a nonneritating tar Still more important is it to have the tar incorporated in a nongreasy or vanishing cream base. It is much more effective and much less irritating, it might even be said that this base is essential. The preparation is gently and thoroughly applied once a day, and immediately and gently wiped off It is a mistake to cover the skin with a large amount of omtment and allow it to remain on, or even worse, bandage it on This principle applies with equal force to any cerematous inflammation some cases of induration that will respond best to this type of medication if an application of boile acid wet diessing immediately precedes for one hour. This softens and drains the skin, and allows the crude coal tar to be twice as effective Nothing acts as well as this combination This is also true in the treatment of obstinate deep epidermophytosis, where the crude coal tar alone may prove in**efficient**

At this point it should be said that it appears to the authors that the diagnosis of the tricophyton organism causing an acute or a chronic allergic dermatitis is too often erroneously made The ringworm lesions of the toes and soles continue merrily with us, but a study of our cases tends to show that some, not all, of the cases of dermatitis of the hands classified as epidermophytid are really occupational contact dermatitis associated with sweat gland abnormality. The same point may be made in the so called secondary ringworm infection often supposed to complicate dermatitis venenata Possibly it is one of the reasons for partial failure of tricophytin extracts in diagnosis and treatment. The subject might well take an entire paper. It is merely recorded here as an observation

The role of infections in allergic dermatitis is undoubtedly important. We

must try to eliminate all foci. But again it is easy to arrive at an erroneous conclusion. Let us consider the following illustrative case:

Patient has the tonsils removed. The protein reaction from the blood clot, the protein reaction from the liberation of bacteria into the blood stream, the rest in bed, the change of environment, all may serve to bring about the picture of an apparent cure. But too often the symptoms and signs return and another physician takes up the investigation.

Acute and chronic inflammations of the skin produce changes in skin pathology. These persist even when the allergic factor has been discovered and removed. Intelligent treatment of the skin must now follow. The diagnosis of the skin pathology must be correct, as more than one disease of the skin may be present. The location of the allergic dermatitis demands our consideration. The complications of seborrhea of the scalp, secondary pustules in hairy regions, complicating impetiginous inflammations of the face, a combination of impetiginious, seborrheic and intertriginous factors about the ears, infection and intertrigo under the breasts, in the axillae and groin, and congestive influences in the lower extremities, are only a few of the many factors with which we must contend in our therapeusis. Our experience in the use of maize and linseed oils in certain deficiencies is limited, but has not yet been found very favorable. Hereditary influences are interesting and in many cases undeniable.

Special reference should be made to allergic dermatitis in infants and children. It is well at first to consider most all cases allergic in etiology, but we find that there often is an initiating or incentive stimulus. The baby with a simple seborrhea of the scalp or with a vesicular sweat gland dermatitis may be treated in this stage and the skin manifestations of its allergy prevented. Sometimes oily and stimulating applications to this vesicular dermatitis pushes the process over into a frank allergic inflammation. In our analysis of infantile eczema, we found thirteen per cent with a seborrhea of the scalp and twenty-five per cent with symptoms of sudaminal dermatitis. The use of soaps and water, oils, especially

those designed to disinfect the skin, contact with woolen and silk clothing, too much clothing, too warm rooms, exposure to heating sunlight, wind and cold, effect of decomposing urine, insufficiently rinsed diapers, chemically treated toilet seats, scratching, irritants to the young tender skin ad lib all contribute to make a venenating dermatitis develop into an allergic symptomatic chronic process. A soothing powdery lotion applied several times day and night to constantly cover the skin finds an invaluable place in our therapeutics. A good five per cent crude coal tar salve, in a nongreasy base, during the day (never at night), and wiped off immediately after application almost invariably is beneficial. The treatment of infantile eczema is of course a broad problem, but early and preventative care of the allergic makes it a much more satisfactory one. Of course the diet is important. Egg and wheat should be eliminated at once until thorough investigation may be made.

In general, efforts at direct sensitization, especially inoculative procedures produced poor results. It was felt that more was being accomplished by taking care of the skin in such a manner as to minimize inflammation and local reaction and by the elimination as far as possible of the etiologic allergy. A few patients with occupational dermatitis under certain restrictions were able to recover and remain at their same occupation. In some a change of occupation was necessary. It is quite well-recognized that with time and favorable influences, many cases of skin allergy lose their sensitivity. This is an important thought in taking care of all these cases.

Conclusions

We wish to express our appreciation of the material, and references on allergy and immunology presented in the 1934 year book of Wise and Sulzberger. Our clinical observations may be briefly summarized as follows:

1. Allergic dermatitis is common and quite likely some sensitization symptoms may be awakened in any person.

2. The allergic reaction may be dependent upon a combination of causative allergic influences.

3. A combination of one or more

allergic factors with one or more nonallergic circumstances accounts for most cases of allergic dermatitis.

 Some cases of allergic dermatitis, including occupational dermatitis and infantile eczema may be prevented, and many cases minimized.

5. The normal skin is less apt to develop inflammatory manifestations of

allergic sensitization.

- 6. Symptomatic treatment is important in preventing the development of a major allergic dermatitis from a minor one.
 - 7. The pathology of the skin lesions

remaining after the allergic cause has been removed requires therapeutic attention.

8. The patient suffering from a dermatitis with an allergic etiology requires symptomatic treatment before, during, and after the removal of the allergic cause. 925 DELAWARE AVENUE

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3. Garretson, W .: Allergy: a Neuro-Endocrine Interpretation,-Med. Record, 141:269. 1935.

Discussion

Dr. Leon H. Griggs, Syracuse-I have enjoyed Doctor Bauckus' paper and admire his courage in preparing such a paper on this very complex problem that confronts us at all times in the practice of dermatology.

The term, allergy, can be defined simply as "altered cell reactivity" but it has a more profound meaning in its relation to diseases of the skin. Physicians at large have become more allergy conscious and without doubt, many physical ailments have been improperly placed in that class. Many practitioners have classed themselves as allergists and I believe that many of them are too enthusiastic as to their end results. As a result, the laity has become quite allergy conscious and many are anxious to undergo the various skin tests with the idea that a "serum" can be given to relieve their condition. I do not mean to belittle the efforts of the allergist but I do believe that we must maintain a more conservative attitude.

I agree with Doctor Bauckus that an exacting history is of prime importance in the early management of a case of allergic dermatitis. I believe that it is of most value in the determination of the prognosis of the case.

I feel that the next step is to attempt to determine, if possible, if the skin condition is a true allergic manifestation. The esuption may be a simple local sensitization or contact dermatitis. In this latter type, I am sure that the outcome will be much more satisfactory. Doctor Bauckus has shown the various methods of this investigation.

It is unfortunate that we do not have a more specific treatment. Many patients have experienced a wide variety of local applications, diets, and physical measures includ-ing x-ray. The allergic patient usually has a vasomotor instability plus an acquired hopeless mental attitude. The treatment of the latter belongs in the field of psychotherapy. It has been my observation that a true allergic patient will show temporary improvement whenever he changes physicians. I believe that with the chronic patient, one should instill a reasonable amount of hope.

I am pleased to note that Doctor Bauckus spoke of the value of horic acid compresses. It has been my experience that there is a tendency to overtreat this type of case. There is no doubt as to the value of crude coal tar but it must be applied only after the acute inflammation has subsided. X-ray therapy must be used in a conservative manner as it appears in most cases to be

only a temporary relief.

I believe that the presence of foci of infection and other factors as a seborrhea have an influence in lessening the normal resistance of the skin and the individual.

In conclusion, I can only add to Doctor Bauckus' remarks that the treatment of an allergic dermatitis must include a great amount of thorough investigation and thought.

Discussion

Dr. Samuel M. Peck, New York City-In the past it has been necessary to do a large number of routine patch, scratch, and intradermal tests in cases of eczema in infants and children. This phase of the attack of this very complex disease had to be gone through because of the lack of statistical data. A number of workers have published

their results in this group of cases, and I have come to the conclusion, based both on their work and my own, that while skin tests are often of value, certainly the num-ber of tests to which a patient must be submitted is a very limited one. As a matter of fact, it is more important to eliminate from the patient's environment, contact

factors, and from the diet, those substances which by tests and clinical experience have proven to be frequent etiologic agents for the allergic manifestations. Only then, should a very limited number of tests be done. Certainly, any sort of a routine examination comprising a very large series of tests of any character is to be avoided. It is very important to emphasize that in the last analysis, the most important therapeutic measure consists in topical applications of

one sort or another in the great majority of cases. The dermatologist, because of his knowledge of differential diagnosis of skin diseases, and because of his long experience in the treatment of such cases, is surely the one to treat these cases. In the main, it is the consensus of opinion that the promise held forth by the skin tests in bringing about the cure of eczemas in infants and children, has not been sustained in a very great many cases.

THE DOCTOR'S WIFE AND "MRS. BROWN"

The botheration caused by the various "Mrs. Browns" in the doctor's practice is treated with good humor and good sense by a doctor's widow. Mrs. Amy Jones, of Omaha, in The Medical World.

You may have planned a foursome at bridge, she says, a dinner party or a night out at the club; but if Mrs. Brown "has one of her spells" your partner must leave the festivities and perhaps spend the most of the evening with "Mrs. Brown" and other patients who may call before he returns, and need immediate attention. You may want to bang up the 'phone and scream, but instead you must always play the part of the gracious doctor's wife who takes the message that sends your husband out on another trip when you are lonesome for his company. Remember to repeat the number and address; also be careful to get the name correctly. This is of vital importance. It may mean life or death in case the message is not taken correctly.

Frequently your husband will spend most of the night on a confinement case or in an emergency operation. He will be tired and irritable the next day. He must show his best side to his patients, and will not want to be bothered by gossip or small talk at home. Neither will he want to hear your

petty household troubles.

Never allow yourself a thought of jealousy. Always assume that his interest in his patients is strictly professional, even though you may stop in at the office and find the same charming woman just emerging from behind closed doors time after time. In no few cases in the smaller cities the "charming woman" may be your old rival. Your heart may ache and you may see "red," but you must remember his professional obligation, even though you may want to ask him the nature of her ills. You must always bury the "green-eyed monster" along with the many, many disappointments that will come your way. Your doctor's success depends upon the service he is able to render the suffering public, and your part

in that success depends upon keeping his home a haven of rest and contentment, and meeting all situations with fairness and poise. I often think of the old shop-worn aphorism; "Behind every great man is a greater woman." This holds true in the medical profession more than in any other line of endeavor. A successful doctor's wife must be loyal, loving, sympathetic, kind, broad-minded, good-hearted, conscientious, honest, and, above all, a good sport about everything. In spite of all the sacrifices, should I ever remarry, my choice would be a doctor.

Alumni Day of the New York University College of Medicine will be held on Saturday, Feb. 22, at the medical college. The program which extends through the entire day includes the presentation of medical papers, laboratory demonstrations, exhibits, and rounds in the wards of Bellevue Hospital. Luncheon will be served in the Students' Lounge in the old building, 26th St. and First Avenue, and the annual dinner will be held at the Park Central Hotel.

MEDICAL RADIO BROADCAST

The Medical Information Bureau of the New York Academy of Medicine announces the following broadcasts from Station WABC and the Columbia Broadcasting System network:

Thursday, February 6, 1:45 P.M.— Speaker: Dr. Anthony Bassler, Consulting Physician of St. Vincent's Hospital, New York City. Subject: "The Human Body, The Power Plant and Its Fuel."

Lady: "What makes you so late with the milk these mornings?"

Farmer: "Well, you see, the pure food law only allows us to have 25 million bacteria to the gallon and you'd be surprised how long it takes to count the little rascals."—Food Facts.

A STUDY OF INFANT CARE IN A RURAL COMMUNITY

MARJORIE F MURRAY, M D, AND RUTH I LYMAN, M D, Cooperstown

In any attempt to improve the health of a community, it is obvious that one of the major considerations should be that of raising the standards of infant High infant mortality and morbidity rates have long been recognized as a sign of poor health standards, while a dropping infant mortality rate is often used as an index of general improvement of public health. With increasing interest in preventive medicine much has been done during the last twenty-five years in the field of infant care Improved obstetrical methods, campaigns to eradicate diphtheria, control of milk supplies with compulsory pastcurization of milk, and many other factors, have all contributed to a world-wide lowering of infant mortality

In the United States the rate for the total registration area in 1915 was 100 infant deaths for every 1000 live births in upstate New York, 101 By 1924, upstate New York had brought its rate down to seventy-one and this figure dropped fairly steadily until in 1934 it reached fifty two, the lowest figure in the last ten years. It has been well proved that this lowering of the death rate of infants is not a mere saving of the unfit, but has been a part of a general improvement in the health of children

Of the various factors contributing to this improvement of infant health maternal education is one of the most important. In most of our urban communities today, infant feeding stations and well baby chines are serving a large group of individuals, and have un doubtedly done much to raise the level of health in the young children of these communities They are sponsored by hos pitals, visiting nurse associations, and various other public and private agencies In our rural districts, however, there has been much less concerted effort in paren tal education and infant supervision. In New York State, baby clinics are held in rural districts under the auspices of the State Health Department but such clinics are held infrequently in any one community, and there is little opportunity of following the individual child through them Public health nursing service is limited in its function in the rural areas because of the distances that must be covered and the time consumed in attempting to visit individual farm homes. The dissemination of information by such means as are found of value in the cities (i.e., by lectures, exhibits, posters, etc.) is impractical for the same reason. The very groups who most need help, are too remote and scattered to be reached.

Morcover, the rural population is fundimentally conservative. Habits and customs are deep-rooted and hard to change There is a vast amount of folk-lore and tradition concerning the infant which is handed down from one generation to another, and grandmothers and greatgrandmothers exert a widespread influence It is just as hard to convert the farmer's wife to modern methods of child care as it is to persuade the farmer to use modern agricultural methods, although no group of fathers is more intelligent and cooperative in the matter of bringing up children than the enlightened farmers who can see the obvious parallel between their problems of husbandry and the problems of child

In this matter of educating parents to give their babies better care, the most important person in the community is usually the family physician This is much more true in the country than it is in the city where pediatricians are easily available and special baby clinics for both well and sick children are usually offered to those who cannot afford the services of a private physician. It probably takes special training and some peculiar turn of mind to find the problems of the infant, its feeding, its daily routine and its habit training of absorbing interest It certainly is not a field enjoyed by most physicians whose work is largely with adults and only incidentally with children, and for this reason it is frequently neglected The family physician who gives excellent care to the sick infant, is often uncertain in his approach to nutritional problems. We have all seen infants put on feedings obviously deficient

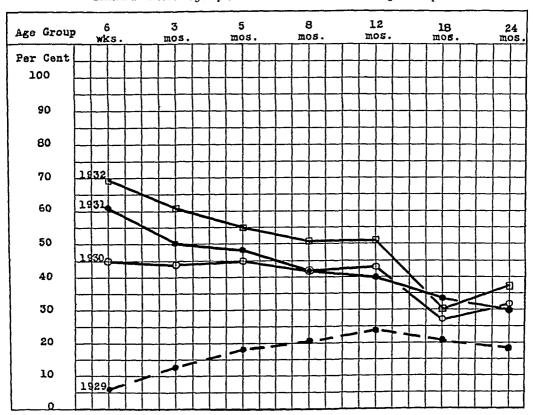
in caloric, protein, or vitamin content, and changed from one sugar to another or from one proprietary food to another, in a vain attempt to solve a relatively simple feeding problem. Few physicians received much training in their medical school days as to the details of an infant's daily life and the matter of habits and habit problems, and it is only through individual interest and study of this phase of child care, that a fund of knowledge and experience is accumulated that can be passed on to the mother. The average general practitioner has no especial interest in these problems.

That most precarious period in the infant's life, the first month, presents peculiar difficulties. The care of the baby for the first few weeks is usually in the hands of the obstetrician, whose fundamental interest is in the mother rather than in the offspring. However much attention he gives to the child, he seldom pretends to be a specialist either in infant feeding or in the diseases peculiar to infancy. The transition between the care of the obstetrician and that of the

pediatrician or family physician, is difficult for the mother whose habit it is to call a doctor only for a case of illness. Often the baby drifts along after the obstetrical period with no supervision until some definite signs of sickness appear and unsurmountable damage has been done.

With these facts in mind, a cooperative plan was drawn up in July 1928 at the Mary Imogene Bassett Hospital in Cooperstown, between the departments of obstetrics and pediatrics. The infants born on the obstetrical service, were placed under the care of the pediatric service from birth. This method had been used in a number of large city hospitals and had proved successful. In our experience at Cooperstown in the last seven years, there has been no difficulty, but rather an increasing sense of cooperation and mutual helpfulness between the two departments. Our maternity service cares for about one hundred in-patients a year. It is a small, self-contained unit in a general hospital of about seventy-five beds. There are certain advantages in the very

CHART I-Percentage of Clinic Attendance Shown in Age Groups



smallness of the service. It is possible to care for the patients under relatively stable conditions. The direction of the services is not passed from one attending to another, but has remained under the same guidance. A pediatric intern cares for both the infants in the nursery and the medical cases in the children's nard. The nursing staff is made up of graduate nurses, and is infrequently changed. A nurse with pediatric training is usually in charge of the nursery. Every effort is made to maintain a high standard of nursing technic, and the babies are cared for on the individual isolation plan with the attendants using mask and gown.

The community served is definitely rural. Cooperstown itself has a population of about 2700, and is surrounded by a farm district with scattered hamlets and villages. The maternity patients represent an economic group probably a little above a true cross-section of the community, although a good many of our very poor come to the hospital and there are very few that could be classed as rich. It is doubtful if more than a dozen babies born in the hospital, in the last seven years, have had nurses to care for them at home.

One of the aims of the pediatric de-

partment in taking over the care of the obstetrical babies, was frankly educational. To interview the mother during her hospital stay, start her on a sound regimen and teach her how to handle her baby when she returned to her home, was one part of the plan. The other part of our program was supervisory as well as educational, and consisted of a series of follow-up clinics offered without additional charge to the mothers of all babies born in the hospital. The mother is notified by card at definite intervals (i.e., when the baby is six weeks, three months, five months, eight months, twelve

in the pediatric offices at the hospital.

Clinics were practically unknown to the community at the time that this service was started. The mothers were hesitant and doubtful. They were frankly skeptical of the kind of care the babies would

months, eighteen months, and two years

old) and asked to bring her baby to the

clinic. She is given a choice of two clinic dates, the clinics being held once a week receive. As a result, our early attendance was discouraging. Our program was in full operation by January 1929, and yet, of the eighty-five babies born in the hospital in 1929, only six returned at six weeks, eleven at three months, and fit teen at five months. (Chart I.) By the time these babies were eight months to

CHART II—Mary Imogene Bassett Hospital

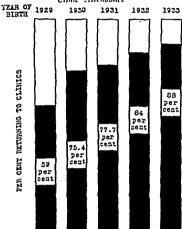


CHART III—Relationship between Clinic Attendonce and Distance from Hospital (January 1, 1929—July 1, 1933)

L'zder 2 miles			10 10 20 miles	Over 20 miles
146	44	65	103	65
78.8%	75%	70.8%	76.8%	73.8%
32.2%				
	miles 146 78.8% 32.2%	2 to 5 miles miles 146 44 78.8% 75% 32.2% 15.9%	2 to 5 sto 10 miles miles miles 146 44 65 78.8% 75% 70.8% 32.2% 15.9% 27.7%	2 to 5 s to 10 20 miles miles miles miles 146 44 45 108 78.8% 75% 70.8% 76.8% 32.2% 15.9% 27.7% 31.4%

CHART IV—Relationship between Clinic Attendance and Size of Family (428 infants born in hospital between January 1, 1929, and July 1, 1933)

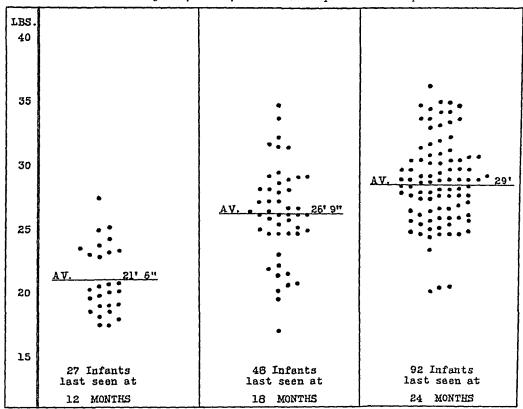
Infont's slace in	of	attend- ing no	sug s or	attend- ing 3 co	1n2 5 to	
femily	sefents	dinica	2 cirnics	4 dixics	7 dinies	
lat child	189	17	27.5	18.5	35	
2d child	94	23.4	29.7	20,2	27.7	
3d child		27.3	29.1	18.2	25 4	
4th child	33	30.3	27.3	12.1	30.3	
5th child	57	35.1	35.1	19.3	10.5	

a year old, the attitude towards the clinics had begun to show a change, and the numbers returning for supervision were increasing and a steady improvement in attendance has been observed since then. Thus, of the babies born in 1932, sixtyseven per cent returned for examination at six weeks, nearly as many at three months, and about fifty per cent at the ages of five, eight, and twelve months. The poorest attendance (30 per cent) was at eighteen months, but at two years it had increased to thirty-seven per cent. In the five years under consideration, the total number of infants making use of the clinics has shown a steady increase from fifty-nine per cent in 1929 to eighty-eight per cent in 1933, with an

III, the attendance record of the infants who came from the more distant homes compares very favorably with those from homes in the immediate vicinity of the hospital. Distance seems to have offered no serious obstacle to the mothers who felt the need of the service offered, and even during the winter months when the roads are often covered with snow and ice, there has been remarkably little drop in the clinic attendance.

In such a service as we offered, we hoped especially to reach those mothers and infants whose need for it was greatest, i.e., the very young mothers, the mothers of first babies, and that group economically unable to pay for such supervision. Of 427 babies born in the

CHART V-Weights of 167 Infants Under Adequate* Clinic Supervision



^{*}Each child attending 3 or more clinics; average attendance for group: 5.2 clinics.

average of seventy-six per cent for the whole period. (Chart II.) Since fifty-five per cent of our maternity patients live more than ten miles, and fifteen per cent more than twenty miles from the hospital, we had hardly hoped that so many of them would return to the clinics. As a matter of fact, as is shown in Chart

hospital between January 1929 and July 1933, sixty-eight were the children of mothers under twenty-one years of age and 189 were first babies; and as is shown in Chart IV, the best records of attendance were made by this group. Of these first babies, eighty-three per cent were brought back to clinics; of second babies,

766 per cent, while among the babics from larger families there was a gradual falling off in attendance

Concerning the economic status of our patients, it is more difficult to accumulate data. In an attempt to classify them from this standpoint, we found about forty-six per cent of them belonging to the poor or border line groups, forty eight per cent to the economically stable group of salaried workers, farmers, etc., and only six per cent from really well to-do families. Relatively few of this upper stratum made use of the clinics, since some were summer residents returning to their own physicans in other towns, and some were supervised as private patients. Of the large group in what might be considered comfortable cir-

cumstances, many came from families with good living standards but with low incomes, people who would find it difficult if not impossible, to pay for such supervision as they received. Thus we felt consinced that most of our work was with those who needed the service and who would not otherwise have received regular medical supervision.

As is true with any attempt to influence something as intangible as general health standards, it has been difficult to evaluate the results achieved by our chine program. Have these chines really raised the level of health of the community, and given us a group of children who would have been less well off without them? To those of us who have spent our energies in some

CHART VI.—Morbidity Study of 167 Infants Under Adequate* Clinic Supervision
(Average number of visits 52 Average period of supervision 20 months)

Illnesses Gastrointestinal Disturbances	Cases	Minor Disturbances	Cases
Serious diarrhea (2 couse)	3		20
Bacillary dysentery Chronic vonuting (habit problem)	2		15
Chronic vomiting (habit problem)	1	•	5 44
Total	6		44
		Total	84
Diseases of Nutrition	0	The table of the section of the table	
	***************************************	Rickets (questionable) (very mild) (mild)	6 6 10
		Total	22
Respiratory Infections			
Pneumon a	11	Pharyngitis and common cold	91†
Purulent otit s med a Adenitis	1		•
Total	21		
Contag ous Diseases of Ch Idhood	===		
Measles	7		
Whooping cough Chicken pox Mumps	7 5 7		
Mumps	· ,		
Rubella	1		
Total			
Allergic Diseases			
Eczema (severe)	2	Eczema (m ld)	15
Asthma	3	,	13
Total	5		
	==		
	2		
Branchial cyst	i		
Total			
Miscellaneous			
Pyelitis	4		
Congenital lues Anem a	2		
Convulsion	2 2 1		
Ascariasis	i		
Total	10		
Total Cases	69		212
* Each child attending 3 or more clinics. † Number of infants	_		===

1600 interviews with mothers and examinations of infants, the answer to this question is of vital importance. To measure results, we must briefly review the work done.

Our general plan has been as follows. At each clinic, every infant is thoroughly examined and the mother is questioned about the general health of the baby, about his habits (bowel, feeding, sleep, etc.) and about any illness or gastrointestinal disturbance he may have suffered. Written records of the history and physical findings, and of the advice given, are kept.

Each infant presents his individual problems, but most of our babies have been cared for on the same general regimen. Breast feeding is urged, but is frequently supplemented. Cod liver oil is started before the infant leaves the hospital, orange juice or tomato juice at six weeks, and solids at the fourth to fifth month. A four-hour schedule is the general rule. Some infants are on four feedings daily by the third month, most by the fifth month. The formula most commonly used is a simple and inexpensive one—two parts whole milk, one part water. and eight per cent Karo syrup, cooked for fifteen to twenty minutes in a double The mothers are taught how to increase this formula with gradual concentration, until cooked whole milk has usually replaced the formula by the eighth month. At this time, most infants are on a three-meal-a-day schedule with one extra cup or bottle of milk. Advice concerning fresh air, sun baths, appropriate clothing and shoes is given, and the mother is taught how to protect the baby from infection. A very definite effort is made to reduce the work involved in caring for a baby. Most of our mothers do their own housework and care for their children unaided, and we try as far as is possible to simplify the babies' schedules. Although we insist on regularity of hours, we stress the fact that a baby does not

need to upset a whole household nor seriously interfere with the mother's duties to the rest of her family.

As to results, from the standpoint of general impressions, they have been gratifying. Most of our babies are easy to care for, and grow and develop in a satisfactory manner. One is likely, however, to unconsciously remember the encouraging and forget the discouraging case, and for this reason we have attempted to evalute our results more accurately; first. by analyzing in detail the records of a group of babies that we felt had received adequate clinic supervision; second, by comparing our infant mortality statistics with those of Otsego County as a whole, the district from which most of our patients come. We considered adequately supervised, those babies seen at least three times; the first visit during the first five months and the last at twelve months, eighteen months or two years. These requirements were met by 167 infants, with an average of 5.2 clinic visits each.

In this group of adequately supervised babies, the general condition of each child at the last examination was graded as Excellent, Good, Fair, or Poor. As Excellent, were classed those with no physical defects except perhaps slightly pronated feet, a finding so common that it might well be considered normal in the child who is begining to walk. As Good, were classed those with one or two minor defects such as slightly flaring ribs, mild eczema, or red tonsils, but whose nutrition and development were normal. Fair, were classed those with several minor defects or those who seemed somewhat below par in nutrition, color, muscle tone, or general appearance (some of this group had recently recovered from a severe illness at the time the examination was made). As Poor, were classed those whose health and physical development were definitely defective.

By this grading, 46.5 per cent were in

CHART VII—Comparative Mortality Statistics, Otsego County, Bassett Hospital (1929—33)

Otsego County 3,48 Bassett Hospital	births 1 day 30 54 39 9	Deaths under 1 week 108 14	Deaths under 1 month 136 15	Deaths 1 to 12 months 76	Total deaths Under 1 year 212 19	Deaths per 1,000 live births 60.9 38 9*
Mortality of 478 known:	40					

Excellent condition, forty-two per cent in Good condition, 11.5 in Fair condition, and none in Poor condition. Such estimates are obviously inadequate, but were made with every effort to form an unbiased opinion from the facts presented

in the records.

The weight distribution, at the ages under consideration, bear out the general impression. (Chart V.) The average weight of the twenty-seven infants last seen at one year, was twenty-one pounds and six ounces, of the ninety-two infants last seen at eighteen months, twenty-six pounds and nine ounces, and of the ninetytwo infants last seen at twenty-four months, twenty-nine pounds-figures a little higher than those for the corresponding ages usually accepted as normal. There was as seen in the chart, a wide spread between the high and low weight figures in our groups, but we were impressed with the fact that this variation was more often dependent on type than on state of health. The small-boned, delicately-built child weighed much less than the large, heavilybuilt child of the same age, irrespective of general condition.

Practically all these children were found to have received cod liver oil and orange juice regularly throughout infancy. For three months or more, 102 (or 61%) were entirely or partially breast-fed. Almost all of them were receiving solids by the fifth month, and were on a general diet by eight months to one year, The morbidity records of this group of infants have been analyzed in some detail and are shown in Chart VI. We found no cases of serious nutritional disturbance in the group. In spite of early and faithful administration of cod liver oil, however, twenty-two babies were noted as showing some signs of rickets of a questionable or mild type. The diagnosis in these cases was not based on x-ray findings, but on the presence of some flabbiness of musculature, flaring ribs, or other clinical evi-dence of rickets. In the very mild or questionable cases, such findings were usually observed at one examination only. Serious gastrointestinal disturbances were rare. If the two cases of bacillary dysentery he excluded, there were only three

cases of serious diarrhea. Of the 167 infants studied, there were ninety with no gastrointestinal disturb-

ance of any kind, 128 with none other than mild constipation, and only five with serious gastrointestinal disease. It is surprising to find almost as many serious surgical conditions in this group of infants as there are serious nonsurgical gastrointestinal diseases. Respiratory diseases were common; ninety-nine infants suffered from some form of respiratory tract infection, while sixty-nine had never had a cold, or at least none reported by the mother. There were twenty-one cases of serious illness in this group of respiratory Although there were tract diseases. twenty-two cases of contagious disease, most of them were mild and uncomplicated. There were two cases of congenital lues, both of which under treatment became Wassermann negative. Allergic manifestations were fairly common with, however, only three cases of severe eczema or asthma. Of the conditions classed as miscellaneous, pyelitis was the most common. It is noteworthy that only one infant had convulsions.

The conditions listed under illnesses were not all of a serious nature. Of the sixty-nine recorded, forty-one cases occurring in thirty-nine infants were noted as Thus, twenty-three per cent of the babies under observation had some serious illness during the first two years of life. On the other hand, twenty-six per cent had never had any illness more serious than a cold, and thirty-two per cent had had no recorded illness whatsoever. No deaths occurred in this group of 167 infants.

As far as known, morbidity statistics in infants cared for at home are not available, so that it has been impossible

CHART VIII Infants born in Bassett Hospital, 1929-1933, 489

Deaths under 1 year, 19 Cause of Death Under I Week
Prematurity
Birth injury (forceps before admission to has
Cause unknown (congenital debility or malfor-Cause unknown (congenital debilit mation) ...
Congenital syphilis ...
Congenital hemolytic anemia ...
Aspiration of anniotic fluid ...
Weck to I Month ...
Birth injury (cellulitis, meningitis) 1 Month to 1 Gordon ...
Londa to 1 Gordon ...
Creminin—mahmirition ...
Arsenie poisoning (murdered) ...
Meningococcus meningitis ... 2 1 1

19

to compare these records with those of others. There is no reason to assume that these babies had fewer illnesses than the average group, but it is obvious that they were strikingly free from nutritional disease and from serious gastrointestinal disturbances. It is also noteworthy that although twenty-three per cent of them had experienced serious illness during the first two years of life, none were in poor condition and only 11.5 per cent were rated as Fair at the end of the observation period. It is perhaps reasonable to believe that this low incidence of digestive disturbance and nutritional disease, and the general good condition of the group, may reflect the influence of our educational and supervisory program.

In analyzing our mortality rates, we have considered the total number of 489 babies born at the M.I.B.H. between January 1929 and January 1934. In order that our figures might be compared with the infant mortality figures for Otsego County as a whole, we have recorded only deaths during the first year of life. There were nineteen deaths among these babies, or a total infant mortality rate of 38.9 per 1000 live births as compared with a rate of 60.9 in the whole county for the same period. (Chart VII.) About one-seventh of the babies born in the county are born at our hospital. Oneninth of the deaths under one month occurred in our group, whereas only onenineteenth of the deaths between one month and one year occurred in this group. The causes of the nineteen deaths in our series are tabulated. (Chart VIII.) Of the fifteen neonatal deaths, seven were due to prematurity and three to birth

injury. Only four deaths occurred in babies who survived the first month, and of these one alone was due to infection, a sporadic and rapidly fatal case of meningococcus meningitis.

In dealing with problems involving infant mortality figures, we realize that our numbers are small and that our low incidence of deaths from such common causes as gastrointestinal disease and pneumonia may be due to good luck rather than to good management. However, it cannot be without significance that in Otsego County as a whole, under the same general conditions and during the same period, there occurred fifty-four infant deaths from infectious disease, respiratory disease, and gastrointestinal disease

In conclusion, an educational and supervisory clinic plan for the care of infants has been tried in a rural community. This plan has proved practicable and of value. The service has reached predominately those who, either because of inexperience or because of economic circumstances, especialy needed it. In spite of the obstacle of distance, there has been a steadily increasing use of the clinics. Over the course of seven years there has been an entire change in the attitude of the mothers to whom the service is offered. Once doubtful of its value, they are now enthusiastic in its support. It is believed that the influence of such education and supervision is reflected in the low incidence of nutritional and digestive disturbances among the babies supervised, and in the low mortality rates from respiratory, contagious, and gastrointestinal diseases.

OSTEOPATHS LICENSED TO PRACTICE MEDICINE IN NEW JERSEY

In accordance with an agreement between the officers of The Medical Society of New Jersey and those of the Osteopathic Society, made in the early part of the year 1935, the two organizations joined in supporting an amendment to the Medical Practice Act defining the conditions under which osteopaths would be given the right to practice medicine and surgery. This Bill was passed by the Legislature and was approved by the Governor on May 23, 1935.

The amended law provides the means by which a graduate of an approved osteopathic school or college may be licensed to practice medicine and surgery, the conditions being that he shall conform to the standards of those practicing medicine and surgery; and that the osteopathic schools and hospitals shall be of a scientific grade equal to those of regular physicians.

In this country the matter of consent to an operation often comes up to plague the surgeon. In England, so we are told, the patient on entering a hospital signs a paper giving the surgeon full freedom to do anything he thinks best for the patient.

PELVIC INFECTION

Laboratory Aids in Diagnosis and Treatment

THOMAS C PEIGHTAL, M D, New York City

Since the epochal teaching of Simpson in 1909 that pelvic inflammatory disease was not an acute surgical problem calling for immediate operative interference, the trend of treatment of these infections has become yearly more and more conserva tive, until, today, probably less than thirty per cent of all types of tubal infection ever come to operation on the average gynecological service. With the adoption of such conservatism in handling this great group of acute cases has developed the necessity of making an accurate differential diagnosis between inflammations of the pelvic structures amenable to expectant treatment and those other surgical emergencies (acute appendicitis, ectopic pregnancy, twisted ovarian cyst, etc.) which call for immediate operative interference In attacking this problem the benefits of a careful history and an exhaustive physical examination must never be overlooked, but even the keenest diag nostician of physical findings usually welcomes the valuable information obtained from certain laboratory data. An attempt to evaluate three such laboratory aids the sedimentation test, the gonococcus complement fixation test and the Frei test will be the aim of this article

The Sedimentation Test

The sedimentation test consists in ac curately measuring the varying speed with which the erythrocytes settle in the plasma of the blood when it has been rendered noncoagulable. The phenomenon of sedimentation was noted as early as the time of Galen, but to John Hunter in 1797 is given the credit of first noting that the speed of sedimentation of the erythrocytes was increased in individuals suffering from inflammatory lesions, and that this speed varied with the severity of the infection From this time until 1850 a number of writers (Nasse, 1836, Davy, 1839, Muller, 1844, and others) recorded their observations regarding this behavior of the red blood cells and sought a satis

factory explanation of it For many years these observations remained buried in the literature until the interest of the medical profession was renewed by the report of Tahracus' in 1917 of his findings of rapid sedimentation of the red cells in the citrated blood of pregnant women 1920 Linzenmeier2 worked out a technic for the test which has been widely used subsequently, and found that even more rapid rates obtained in patients with in fections and particularly those suffering from pyosalpinx From this point on in this country Friedlander³ (1924), Polak⁴ (1926), Baer and Reis⁵ (1926) and many others have demonstrated the great value of this test in obstetrics and gynecology, while more recently Grodinsky (1932), Lesser and Goldberger (1935), and Smith⁸ (1935) have detailed its advantages in general surgery Gruenfeldo (1928), Cutler10 (1932), Bach and Hill11 (1932), Bannick12 (1933) and others have noted its significance in medical cases, particularly rheumatic fever and tuberculosis

Etiology The etiology of the phenome non of sedimentation of the red cells in the plasma has received the attention of many investigators, both here and abroad Some feel it is due to a variation in the constitutents of the plasma while others feel it has to do with the electric charge of the erythrocytes themselves. This lat ter theory is probably the most widely accepted Huber has shown that the red blood cells carry a negative charge and that in normal blood they remain sepa rated by uniform distances since similar charges repel each other In diseased states the red cells tend to lose this electric charge and therefore clump and settle more rapidly in their plasma. The erythrocytes of normal blood, if transferred to the plasma of blood under inflammatory conditions, settle more quickly than in their own plasma

Therefore it is assumed that the bodies which cause the red cells to lose their

electric charge are to be found in the altered plasma. Whether this is due to the changed agglutinins, gobulins or changed viscosity of the plasma is still a matter for debate.

Technic. Most laboratories use one of two technics for the sedimentation test, which differ little as to the method of obtaining the citrated blood, but vary chiefly as to the type of tube in which the cells are placed to sediment.

In the literature most authors have employed the Linzenmeier test as modified by Friedlander. Here the sedimentation tubes are 6.5 cm. in length and five mm. in diameter, with a capacity of slightly over one c.c. They are marked at the one c.c. level and below this at levels of six mm., twelve mm., and twenty-four mm. The sedimentation time is the number of minutes it takes the red blood cell column to settle to the eighteen mm. mark. Eight-tenths cubic centimeter of blood is drawn from a vein with a syringe containing 0.2 c.c. of a freshly prepared five per cent solution of sodium citrate.

Although Friedlander found the normal sedimentation time in healthy individuals to be 1000 to 1200 minutes in males and 600 to 1000 minutes in females, readings are not usually considered abnormal unless they are less than 120 minutes.

The Westergren¹³ technic is the other frequently used. In this 0.4 c.c. of 3.8 per cent of sodium citrate solution is placed in a syringe into which is drawn blood up to two c.c. This is thoroughly mixed in a test tube and the citrated blood drawn up in a pipet two mm. in diameter until a column 200 mm. in height is obtained. This pipet is calibrated downward from the 200 mm, mark in millimeters and the test is read noting how many millimeters the column of red cells settles in an hour. Normal healthy blood settles three to fifteen mm. in an hour. Some feel that the capillary attraction and friction of cells in this narrow pipet makes this method less accurate, but the error is insignificant. The writer prefers the Westergren technic because of the practical advantage that the test only requires an hour and one reading at this time suffices.

Others use the Weiss¹⁴ technic in which the citrated blood is placed in a special two c.c. cylinder which is graduated from one to one hundred so that readings are made in percentage of the fluid column. Readings are made every fifteen minutes for one hour and normal is between three and five per cent in forty-five minutes.

Results. Since 1930 all admissions to the gynecological service of the Roosevelt Hospital, from which this report is made, have had the sedimentation test. It is on the basis of this experience in coordinating this test with the leukcocyte count, temperature, and other clinical data that the following observations are made in regard to diagnosis, prognosis, and therapy in pelvic infections. The Westergren technic has been used and readings recorded in millimeters of sedimentation at the end of one hour.

It must be emphasized that this test is not a specific diagnostic sign for any disease, but that it does indicate the presence or absence of an inflammatory process somewhere in the body, and in some inflammatory conditions it may be used in part to estimate the severity of the infection. Thus it becomes evident that if one is to use this test as an aid in differential diagnosis within the pelvis, a careful history and physical examination is necessary to exclude the presence of infection elsewhere in the body. It is to be remembered that infected sinsuses and teeth as well as acute rheumatic fever, tuberculosis, etc., cause rapidity of sedimentation. The chief physiological condition which increases the rate is pregnancy. This increase is gradual from the third month, until at the ninth month it is, according to Griffin¹⁵ (1934), five times the average normal. This change in rate above the normal entirely disappears by the fourth week postpartum.

In the differential diagnosis of conditions causing pain in the right lower quadrant the sedimentation test furnishes a very definite aid, particularly within the first forty-eight hours of the onset of symptoms. At this stage the chief concern of the clinician is to rule out or verify acute appendicitis for practically every other pain producing pelvic lesion will permit of some delay for observation in arriving at a correct diagnosis.

It has been repeatedly emphasized in the literature (Grodinsky, Lesser and Goldberger, and Smith) that the sedimentation rate remains approximately normal in acute appendicitis for at least the first forty-eight hours from the onset of symptoms, and during the catarrhal, suppurative, and even gangrenous stages of this pathology. Increased rates are observed only in empyema, localized abscess or general peritonitis. Records made on the surgical service of the Roosevelt Hospital support these observations.

Frequently, and in private practice especially, cases of acute salpingitis are seen sufficiently early that the swollen tube has not become indurated enough to be recognized as a palpable mass, and the bimanual examination reveals only tenderness and spasm. In nearly all of these cases the sedimentation rate is already markedly increased, (50 to 100 mm. in

an hour.)

Thus even with all clinical and physical data at hand this test may be a real deciding factor in differentiating the acute appendix from the early acute tube. That these conditions produce no such constant variation in the total white blood count nor in the polymorphonuclear cells by the ordinary count or by the Schilling or Arneth indices has been repeatedly demonstrated (Grodinsky,8 and Lesser and Goldberger[†]).

The most rapid sedimentation reading recorded by Lesser and Goldberger in seventy-five cases of acute catarrhal suppurative, or gangrenous appendicitis was fifteen mm. in one hour while the white blood count varied from 7,000 to 29,000 and the polys from sixty per cent to ninety-three per cent. In cases of acute salpingitis, the sedimentation rate is seldom below fifty mm. and frequently up to one hundred mm. in one hour, while the white blood cells are from 7,000 to 30,000 and the polys from seventy per cent to ninety-two per cent. Grodinsky, reading the sedimentation in time rather than rate, found that in forty-three acute and subacute appendix cases the average was 115 minutes while in the average acute tube, the time was thirty to sixty minutes. The leukcocyte and poly counts (by Schilling index) showed no characteristic differences in the two conditions.

As soon as the pathology in question produces a palpable mass, no such dependence can be placed upon the sedimentation test to differentiate appendiceal from tubal involvement, for the appendix abscess may have a rate equal to that of

the pus tube, and the diagnosis must be made from clinical history and physical signs. However if the appendix can be ruled out in any case of pelvic mass then again the sedimentation test becomes an important adjunct in ascertaining the nature of that mass.

Here one must consider salpingitis, unruptured ectopic, twisted ovarian cyst, hemorrhage into a large Graafian folliele or eyst, and painful ovarian swelling related to ovulation. It is obvious in this group that the history and pelvic examination are by far the most important factors in making the correct diagnosis while temperature, blood count, Aschbeim-Zondek test, and sedimentation rate only

help to influence the opinion.

The swollen inflamed tube will consistently have a sedimentation rate of from fifty to one hundred nun, and a time of thirty to fifty minutes while the unruptured ectopic pregnancy with none or very little blood in the peritoneal cavity will have a rate between twenty to thirtyfive mm, and a time of one hundred to one hundred and twenty minutes. The twisted ovarian cyst may have a very high sedimentation rate if there has been much interference with the circulation of the tissue, while the hemorrhage into the follicle or cyst and the painful ovarian swelling usually cause no increase in the

Thus far we have endeavored to show that the sedimentation test is invaluable in helping to differentiate pelvic inflammation from other lesions, but this test also offers the gynecologist a much more important service in assisting him to prognosticate the degree of healing in valpingitis or postabortional infectious, and in giving him an accurate indicator as to the proper time to operate.

Previous to the use of this test we depended chiefly upon the temperature enrye and leukcocyte count for this information. Then repeatedly cases of pelvle infection were allowed out of hed too early and had relapses, or operations were done in the "too acute" stage resulting in excessive operative trauma and stormy convalescence. We found the temperature curve and leukcocyte count returned in normal often many days before the sedi-mentation rate had been appreciably reduced restore by adopting the rule of

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not allowing cases of acute salpingitis out of bed until the sedimentation rate falls below thirty mm. in an hour (this is equivalent to a sedimentation time of sixty minutes) we have had practically no relapses. Similarly by adopting the same figure above which we would not operate upon chronic tubal disease we seldom enter the abdomen in the "too acute" stage and postoperative convalescence is far smoother. Likewise the chance of practicing more conservative surgery is enhanced. This is more especially true if one is contemplating such work as salpingoplasty or re-implantation of the tubes at the uterine cornua for sterility. By following this same rule in fibroid cases both hysterectomy and myomectomy may be done with less operative risk.

We have not discarded the leukcocyte count and differential but we have added to it the sedimentation test, and of the two we feel the latter offers us more accurate information in both diagnosis and therapy. Its technic is simple and not a burdensome task. We feel that by strict dependence upon the sedimentation test in guiding our therapy both for palliative and operative measures, we have vastly improved our care of every patient on the service.

Gonococcus Complement Fixation Test

Every gynecologist is frequently confronted with the problem of determining whether or not a case of tubal infection is of Neisserian origin, and even more often he may be called upon to say whether a proven case of gonorrhea is active, latent, or cured. In such decisions every scrap of positive or negative evidence is welcome.

With a desire to learn from our own experience just how valuable the gonococcus complement fixation test might be in aiding us to determine a correct diagnosis or evidence of cure in pelvic infection, we began about eighteen months ago to do this test along with the usual Wassermann on all ward admissions.

Technic. Three tubes are set up for each test. The first contains .05 c.c. the second .1 c.c., and the third (the control) .2 c.c. of undiluted patient's serum. To each of these is added .3 c.c. of saline. Then to the first and second tubes (the

third tube being the control) is added the antigen according to the titration marked on the vial by the manufacturer. (We have been using Parke, Davis & Co., Polyvalent Gonococcus Antigen and the usual amount added is from .1 c.c. to .15 c.c. of a 1:20 dilution of this antigen.) This antigen has been found to be quite stable and retitration is not usually necessary. After adding the antigen, the tubes stand at room temperature for ten minutes. Then is added to all three tubes .2 c.c. of a 1:10 dilution of guinea pig serum as a complement. The tubes then stand in the ice box over night. The guinea pig serum complement is obtained by drawing from the heart ten c.c. of blood and by using only this amount from each animal; they are not killed but used repeatedly for this purpose. Next morning to each tube is added .2 c.c. of anti-sheep amboceptor (Parke, Davis & Co.). (This too is titrated and dilution is according to the titration.) Next is added .2 c.c. of five per cent sheep cells in saline. tubes are then placed in a water bath at 37.5 degree centigrade until the control tube clears (usually about 45 minutes) and the final reading is made about one hour later at room temperature. Readings are made according to the degree of clearing as one, two, three, and four plus.

Brunet and Levine¹⁶ in reporting recently on 1000 gonococcus complement fixation tests on female patients stated their belief that a negative reaction in some cases with positive clinical evidence of disease does not dispute the specificity of the test. The gonococcal antibody is at its height in four to six weeks after infection in untreated cases, and begins to disappear rapidly as a case yields to treatment. They also feel that the antigen used in many laboratories is insufficiently sensitive and that a negative reaction in a case with suspicious clinical symptoms cannot be taken as an indication of the absence

In our own experience we encountered several early cases with negative fixation test and positive smears in which a week to ten days later the fixation reaction was four plus. We therefore wish to emphasize the necessity of repeated tests in early suspicious cases.

of gonococcal viability.

Brunet and Levine, 16 and Retzlaff 17 and others have found that in the presence

of seropositive syphilis the gonococcus fixation test will give positives in a few cases in which gonorrhea does not and has not existed Brunet and Levine noted this in nine to ten per cent of their luctic

We have had thirteen cases with three and four plus Wassermann reactions who have also had positive fixation tests. Seven had one plus, two had two plus, one had three plus, and three had four plus fixation tests. All but one had negative smears, seven had elimical evidence of gonorrheal infection while six had no history or clinical evidence of such infection. Thus even this small group would seem to bear out the observation that in the presence of seropositive syphilis the gonococcus fixation test cannot be regarded as specific in indicating the presence of Neisserian infection.

However in the absence of a positive Wassermann, the fixation test has been found to be sensitive and dependable if carefully prepared antigens are used. The intensity of the complement fixation scens to have little if any relation to the location of the disease, but to depend chiefly on the time factor from the onset of the infection and therefore upon the amount of specific antibody in the blood With the present antigens it has been shown that the antibody appears in the blood in sufficient quantity to give positive reactions within the first week and often before the disease can be clinically recognized On the other hand, Retzlaff, 17 Brunet and Levine, 16 Inone and Nagasaki 18 have all shown that the antibody disappears from the blood in from one to six weeks after all organisms have been eliminated

In the absence of syphilis, persistent positive fixation reaction, regardless of its intensity, means the presence of active organisms and disease. Even a one plus reaction, if repeatedly obtained, must be so regarded. However a negative reaction must not be considered as evidence that infection does not exist, since it is known that a number of cases with definite gonococcal activity show negative results. This has been explained as due entirely to the use in the test of a strongly lytic complement unit, which renders negative what otherwise would be weakly positive tests. A more widespread use in labora-

tories of purer antigens will in turn permit employing complement units of reduced lytic potency, and thus gradually the fivation test will be markedly improved in this respect

During the past year we have had seventy-five cases with positive gonococcus complement fixation tests, thirteen have had positive Wassermanns so that sixty-two may be regarded as having had scrological evidence of gonorrhea these forty-three had clinical proof of the disease, ten by positive smears and thirtythree by physical findings, while ninetecn had no clinical evidence of infection According to the intensity of the reaction seventeen were one plus, twelve were two plus, thirteen were three plus, and twenty were four plus Of the ten cases with positive smears two were one plus, two were two plus, two were three plus, and four were four plus

In our experience the positive gonococcus complement fixation test became negative within a few weeks after obtaining consistently negative smears provided there had been no tubal involvement With palpable adnexal pathology present, the test often remained positive long after obtaining negative smears and in some chronic cases continued to give positive reactions until surgical removal of the diseased tubes had been accomplished. In acute salpingitis which cleared up rapidly leaving no palpable evidence of tubal involvement the fixation test became negative within two months. No correlation could be established between the location of the lesion and a positive test as the reaction seemed equally sensitive in all groups We also believe that in chronic adnexal pathology the positive test will definitely differentiate the specific from the nonspecific infections but that at present in our laboratory the negative test cannot be depended upon to so differentiate these cases

Frei Test for Lymphogranuloma Inguinale

The Frei test for lymphogranuloma inguinale is rapidly finding a place of importance among the diagnostic procedures of many gynecological services A discussion of the clinical recognition and treatment of this disease is not within the scope of this article but for those inter-

ested in this phase of the subject we refer to the splendid articles of Cole,¹⁹ DeWolf and VanCleve²⁰ in Cleveland in which a complete bibliography may be found.

The inguinal adenitis in the male, and the elephantiasis of the vulval and perianal tissues with the multiple fistulae and frequent rectal stricture in the female have all been described for many years and variously attributed to tuberculosis, syphilis and other causes. The etiological agent has not been identified except as a filterable virus, which can be transmitted to animals and through animals back to humans.

In 1925 Frei²¹ reported an intradermal test for lymphogranuloma inguinale, and all subsequent workers in this field have testified to the specificity of this test. Chancroidal ulcers and adenitis which might be confused give a negative Frei test and can be more positively identified by the Ducrey bacillus in smears or by the Ito-Reenstierna reaction, also a specific intradermal test.

Frei and subsequent workers secure the material for the antigen by aspirating the pus from a suppurating unopened node in a patient with lymphogranuloma inguinale who has also never had syphilis or chancroidal infection. This material is diluted 1:2 or 1:4, depending upon its consistency, with sterile saline solution. It is sterilized at sixty degrees centigrade for two hours one day and to the same temperature for one hour the succeeding day, after which it is tested for sterility and put up in ampoules. The antigen is then tested on known cases of this disease, but not upon the same case from which the material was obtained, and the reaction should be positive in these cases and negative in normal controls.

For the test an intradermal (not subcutaneous) injection of .1 c.c. of the antigen is given and the reaction is read in forty-eight hours. A red papule, 6 mm. or larger in diameter is regarded positive, and the measurement should not include the faint erythematous blush which often surrounds the papule. A positive papule may be larger and may umbilicate and even suppurate. For this reason in the female it is desirable to make the test on the thigh rather than the arm, as the papule often persists for some weeks and may leave a scar. This reaction is of an

allergic nature, is present within ten to twenty-one days after the adenitis appears and probably remains positive throughout life.

Hellerstrom²² has shown that antigens made from the brains of monkeys infected through subdural injection, give the same specific Frei reaction when used on humans as when the human antigen is used. Working along this line, Grace and Suskind²³ at Cornell Medical College have developed a mouse brain antigen which is more highly potent than that made directly from the same human material used in the preparation of the brain antigen.

We are greatly indebted to Doctor Grace for furnishing us the antigen used on our service. This antigen is a ten per cent emulsion of infected mouse brain and for each test .1 c.c. is injected intradermally, using a one c.c. tuberculin type of syringe with a 27 gauge needle. If positive, the raised papular reaction is noted in from forty-eight to seventy-two hours. If negative, no reaction occurs and if one uses an injection of a similar emulsion of normal mouse brain as a control, no reaction appears. Quite recently one of the commercial laboratories (Lederle) has begun the manufacture of a potent mouse brain antigen and it is now available to the profession in syringes ready for use.

Particularly in the female the location of the lymph nodes involved depends necessarily upon the seat of the primary lesion. If this is located high on the vulva the inguinal nodes may be swollen; if lower around the fourchette or within the vaginal orifice, the deeper pelvic nodes and those around the rectum become infected, later resulting in palpable pelvic masses and stricture. Extensive vulval and perianal involvement is readily recognized, but not infrequently the primary lesion may be small, of short duration and, especially if it is situated within the vaginal tube, may readily be overlooked. If such cases have considerable swelling of the deeper and higher pelvic nodes the condition may easily be mistaken for the induration of parametritis or tubal infection. It is in such instances that the Frei test is of inestimable value in recognizing the true character of the pathology, and it is for this reason that we venture to include this test in our consideration of laboratory aids in the diagnosis and

treatment of pelvic inflammatory disease. The following case from our service

serves to illustrate this point:

H.G.M., an American white woman, age thirty, was admitted with a history of increasing constipation, pelvic pain, and a sense of mass in the rectum of three months duration with blood in the stools on two occasions and ten pounds loss in weight down to ninety-two pounds. She denied gonorrhea or lues. Pelvic examination revealed normal external genitalia, vagina, and cervix; uterus normal in size and pogition; right adnexa negative and the left pelvis containing a hard tender mass of induration fixed in the fornix and high around the rectum and pelvic wall, Sigmoidoscopy up to twenty cm. revealed no growth but indicated that the rectum was in part fixed to the mass.

On admission the temperature was normal and the sedimentation test sixteen mm. in an hour. The other laboratory tests, including gonococcus fixation and Wassermann, were negative. Barium x-ray of the colon was negative for obstruction or growth. Within four days the temperature was between 101 and 103° F., the sedimentation test 101 mm., the w.b.c. 13,000, polys 94, and the left pelvic mass became rapidly larger with evidence of fluctuation in the culdesac.

Through a posterior colpotomy incision was obtained a quantity of serosanguineous fluid from which was grown a pure culture of long-chain, non-hemolytic streptococcus. The character of this fluid and the high perirectal induration noted on examination through the colpotomy incision made us suspicious that the infection had not originated in the tube. A Frei test done the day of this operation was strongly positive in forty-eight hours, the papule being ten mm. in diameter and four mm. in height. The patient has since been receiving tartar emetic intravenously and the mass now is less than half its original size.

We feel that in the past, without a knowledge of the pelvic pathology of lymphogranuloma inguinale and the Frei test, this case would have been diagnosed among the general group of pelvic inflammatory disease. Lymphogranuloma inguinale is not a rare disease. Two cases are on our service at the present time. Frei antigen is now available to all, and we therefore strongly urge the use of this test in all suspicious cases, or in all instances where the etiological factor in the pathology of pelvic induration is not clearly demonstrable.

Conclusions

In conclusion we wish to restate our conviction that the sedimentation test is a most valuable aid in the diagnosis of early acute infections in the pelvis and particularly in the right lower quadrant; that it is an indispensable adjunct in estimating the progress toward cure in all types of tubal disease and pelvic cellulitis; and that it is the most accurate indicator we have of ascertaining when an operative case of salpingitis, tumor, or other chronic inflammatory pathology, is in favorable condition for surgery.

We believe that the gonococcus complement fixation test merits a more general use in accurately diagnosing types of pelvic infection and in determining the latency or cure of Neisserian disease; and that the Frei test for lymphogranuloma inguinale, with its antigen now readily obtainable, should rapidly become a necessary part of the diagnostic equipment for properly investigating obscure intrapelvic lesions on every gynecological service.

106 EAST 79TH ST.

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Discussion

Dr. C. J. Marshall, Binghamton-I have had no experience with the Frei test and very little with the complement fixation test for evidence of gonorrhea.

A study of the sedimentation time was made in twenty-five cases of pelvic infections, urethritis and vaginitis, at the Binghamton City Hospital while under the Elliot treatment. The number of tests varied from two to fourteen and Linzenmeier's method was used. Counts falling below 12,000 and with a normal differential, usually showed a normal sedimentation rate. Pelvic pain in such instances was finally found to be due to conditions other than inflammation lesions. However, with a history of chronic salpingitis and a similar count three cases showed an increased rate. This, of course, suggests an active stage of chronic inflammation. Other cases with fairly definite clinical evidence of pelvic inflammation, but with a low count, had a rapid rate, thus indicating that the sedimentation rate, at least in some instances, is a better criterion of body reaction to infection than ordinary routine blood counts. Another thing brought out in our series was that in pelvic inflammation, combined with a four plus complement fixation test for syphilis, the sedimentation rate was extremely fast, going as low as fourteen minutes. On the whole, however, the sedimentation rate correlated

well with the blood count, a high count with a high percentage of leukcocytes being accompanied usually by a rapid sedimentation rate which decreased with the blood count.

When operative procedures were followed, it was noted that, at least in some instances, the rate of sedimentation corresponded to the extent of involvement, that is, a large abscess or ruptured abscess had a more rapid rate than a smaller localized accumulation of pus. And this may be used as a means of differentiation, since an acute uncomplicated appendix may have a relatively normal rate. Furthermore, unruptured ectopic pregnancy is apt to have a normal rate.

Thus, the sedimentation test may assist in making a differential diagnosis, but its real value appears to be in following the progress of a case. The Schilling count was not done in our series, but from subsequent observation, it is obvious that the two tests would afford valuable information.

As a result of the observations made in our series, the conclusions arrived at are similar to those mentioned by Dr. Peightal, namely, that the test is important-1. In making a differential diagnosis. 2. In assisting in deciding the optimum time for operation. 3. In following the progress of a case undergoing medical treatment.

POST GRADUATE INSTITUTE TO BE HELD

A Post Graduate Institute, offering an intensive and interesting study of the newer work in the field of cardiovascular and renal diseases, will be conducted by the Philadelphia County Medical Society during the week of April 20 to 24, inclusive.

The program, to be held in the Bellevue-Stratford Hotel, Philadelphia, has been designed to meet the needs of all members of the profession, but particularly those in general practice. Physicians from all parts of the eastern and east-central United States are invited to attend.

Lecturers, about thirty in number, have been selected from among the foremost teachers in this great center of medical education. The medical faculties of the University of Pennsylvania, Jefferson, Temple, and Woman's Medical College of Pennsylvania, are represented on the program. While approaching the subject from specialized viewpoints—those of the physiologist, cardiologist, pediatrician, surgeon, roentgenologist, bacteriologist, internist-the presentations will be of a strictly practical nature, and should be of real value to the general physician, who finds cardio-renal conditions occupying a large proportion of his time.

The Philadelphia County Medical Society, in conducting the Post Graduate Institute, is meeting the demands of many physicians who have felt the organized profession should provide them with this type of opportunity for keeping abreast of medical progress and thus maintaining the highest standards of medical service. The only charge is a \$5 registration fee to cover the Institute's expenses. It is hoped to make the event an annual one, giving special attention each year to a different subject.

PULMONARY TUBERCULOSIS

Serial Roentgen Studies in Superinfections

HLNRY K TAYLOR, MD, FACP, New York City From the Department of Roentgenology Sea View Hospital, New York City

Clinical observation and serial roentgenographic study of the adult type lesions in pulmonary tuberculosis (superinfections) permit of a classification which is based on a qualitative component, irrespective of the size of the lesion Roentgen study has revealed that tuberculosis lesions are either exudative or productive in character from the earliest time that patients come under observation The healing manifestations of these lesions, demonstrable on the roentgenogram, characterizes the lesion and permits of a division into five types. The exudative lesion may (1) resolve completely and leave no traces in the roentgenogram, or, (2) it may resolve incompletely, leaving a few fibrotic strands as the only residue of a previous inflammatory process, or, (3) it undergoes necrosis with cavity formation The productive lesion may present itself as (1) small nodules or fibrotic strands or a combination of both, or (2) fibrosis with small excavations resembling a bronchiectasis

Exudative Lesions

1 Complete Resolution (beingn) This is an acute lesion presenting few and no alarming symptoms clinically, and is often overlooked The symptoms may be no more marked than an ordinary cold and disappear in a few days. The lesion usually escapes detection because of none or infrequent roentgen examinations when few clinical symptoms are present Hemoptysis is present in about forty per cent of these cases and this symptom usually-not always, unfortunatelycalls for a roentgenographic examination of the chest The findings are commonly those of a coalescent multilobular area of decreased aeration, exudation or consolidation, varying in size from a small patch to a lobe or lung When resolution of this lesion is complete, which requires from six weeks to six months, there are no roentgen evidences of a previous inflammatory process During resolution annular shadows are sometimes observed which may be mistaken for cavities. These annual shadows disappear as resolution progresses True cavities which close spontaneously usually leave some cvigences (of fibrosis) in the rountgeno gram (Figs 1A and 1B)

2 Incomplete Resolution — Residual Fibrotic Strands (benign) The roentgen findings are similar to the one just de scribed Resolution requires more time six to eighteen months. When the exudative lesion has completely resolved there is a residue of a few fibrotic strands, the only evidences of a previous inflammatory process Here also annular shadows may present themselves during the process of resolution and be mistaken for cavities, which disappear as resolution progresses (Figs 2A and 2B)

3 Necrosis with Cavity Formation (malignant) This type of pulmonary tuberculosis accounts for the mortality The lesion resembles the two above de scribed types Instead of resolution, caseation with cavity formation results. This is nature's attempt at healing-localization of the lesion with expulsion of the products of the infection Bronchogenic spreads to other portions of the lungs may occur The cavities serve as sources of tubercle bacilli. The spread to the same or contralateral lung may be benign or malignant, depending for the most part upon the dosage (Figs 3A and 3B)

Following through to the end stages, this lesion may terminate in one of two wavs (1) the lesion may excavate itself and leave one or more cavities (Fig. 4A), producing no deformity of the thoracic and mediastinal structures, or (2) after excavation, secondary changes occur such as retraction of the lobe, or lung, bronchostenosis, fibrosis, emphysema, deformation of the thoracic and mediastinal structures (Fig 4B)

From the onset to the terminal stage of a malignant exudative lesion many changes become apparent-consolidation, necrosis, cavity formation, fibrosis, bronchostenosis, atelectasis, deformation of

thoracic and mediastinal structures, etc. Because of these varied developmental changes of this type, the nomenclature is replete with descriptive terms for this lesion, such as, chronic ulcerative, fibrocaseous, ulcero-caseous, mixed cavernous, etc.

Productive Lesions

1. Fibrosis (benign). This lesion usually starts in the apex of the lung and

is often bilateral. Small dense nodules and fibrous strands are found. At times, only the nodular lesion is apparent. This type is not preceded by a demonstrable exudative lesion in the roentgenogram. The process may be limited to the apices or upper lobes and show no progression (Fig. 5A) or progress slowly (Fig. 5B) and eventually involve the major portions of both lungs. These patients are usually well, present few or no symptoms

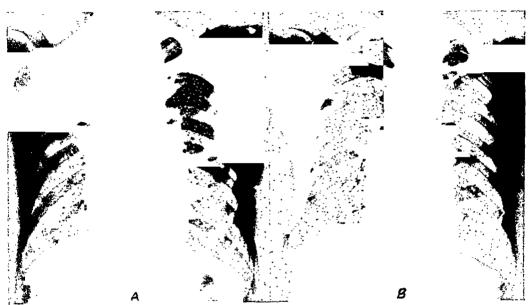


Fig. 1. J. R., negro, male, age 47: A—coalescent exudative lesion in right upper lobe; B—four months later, complete resolution with no traces in the roentgenogram (benign exudative).

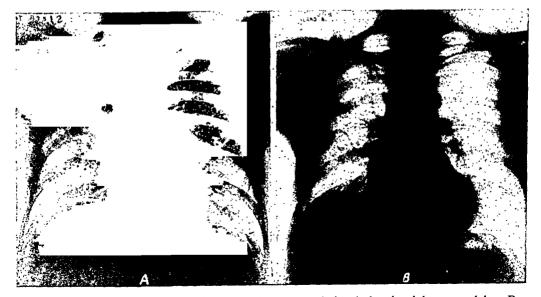


Fig. 2. R. B., white, male, aged 37: A—coalescent exudative lesion in right upper lobe; B—eight months later, incomplete resolution—residual fibrotic strands in basal and axillary portion of right upper lobe (benign exudative).

and may be unaware of their tuberculous process, until some complicating lesion develops, such as, emphysema, laryngeal or intestinal tuberculosis

2 Fibrosis With Cavity Formation (malignant) At times, the nodules in the type just described, coalesce, cascate, and form numerous small cavities, resumbling a bronchicctasis (Fig 6) When

this occurs the lesion should be considered malignant. These small excavations are sources of tubercle bacilli. A gradual extension of the lesion may occur by frequent bronchogenic spreads.

Graphically, the types may be sum-

Benign—Exidative complete resolution resolution with residual fibratic strands



Fig 3 R Y, negro female agod 27 A—coalescent exuditive lesion in left upper lobe B—two months liter, central necrosis with cavity formation (mulignant exuditive). There is an exuditive spill in the right base.

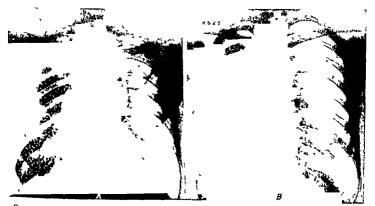


Fig 4 A—G F, white male, aged 52 Lungs show cavities, no deformities, two year history (malignant) Sputum always positive Gaffky 4 No temperature B—HT, white, female, age 21 Retraction of chest and lung with deviation of the traches, heart and mediastinum to the right, four year history (malignant) Sputum positive Gaffky 2-4 No temperature

Productive; stationary: progressive.

Malignant—Exudative; cavitation with and without deformity. Productive; coalescence of nodules with cavity formation.

Miliary tuberculosis is not included in the types described, for it is a complication, a rupture of a caseating focus with wide dissemination of many organisms by the blood stream.

It is obvious that the roentgen study reveals a qualitative element in addition to the quantitative component of a tuberbe described as acinous, lobular, multilobular or lobar, discrete or coalescent, local or general, unilateral or bilateral, and minimal, moderate or extensive.

Recently, Brown and Sampson² described a tentative working classification, which in conjunction with the color of the individual and the size of the lesion, minimal and advanced, also depends upon the qualitative component to aid in the treatment. They divide their advanced cases into exudative and proliferative

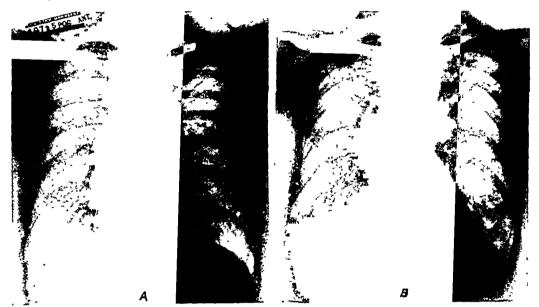


Fig. 5. A—J. L., white, male, aged 34; Fibrotic strands with numerous small nodules in apices. No progression of the lesion in two years (benign productive—stationary). B—P. K., white, male, aged 57. Fibrotic strands and nodules in upper lobes. Gradual extension of the lesion—five year history (benign productive—slowly progressive).

culous lesion. The National Tuberculosis Classification is based on the quantitative element of the lesion, depending upon the area of lung involved. The National Tuberculosis Association recognizes that a qualitative element exists, admits it may have a clinical significance, particularly in relation to prognosis and treatment, but deems it difficult and perhaps inadvisable at the present time to include this feature in its classification. I believe that the qualitative component is the more important and should be the dominating factor in the classification, while the quantitative element is of lesser importance and should receive secondary consideration. In addition to the qualitative element of the lesion, the anatomical description as well as the quantitative component may be utilized. The lesions may

groups, each with and without excavation, and their tendency to remain either stationary, progress or retrogress. To quote Brown and Sampson.

All patients with the exudative type of disease should be considered to be in a more serious, a more rapidly changing, a more acute condition. In a certain number the condition improves very rapidly but in others it progresses just as rapidly.

The phrase condition improves very rapidly certainly must refer to resolving benign lesions. They also show ninety-two per cent alive at the end of fifteen years in a group they designate as minimal, with no cavity formation, where there has been no surgical intervention. Certainly, this latter group must have had benign lesions.

Investigation of the literature reveals

that the qualitative element of the lesion in pulmonary tuberculosis is known, but is not utilized. In 1925 Bendove³ described resolution and healing in pulmonary tuberculosis and quoted Krause⁴ (1922) on the healing and disappearance of tubercles. In 1931 Ornstein, Ulmar, and Dittler presented a clinical classification of Pulmonary Tuberculosis, and Shipman independently, presented a classification quite similar to the one of Ornstein, Ulmar, and Dittler, ^{5,6}

Classifications depending upon autopsy material, while valuable, give the terminal stage, omitting information as to progression or regression. The roentgen examination permits of scrial studies, the qualitative as well as the quantitative elements, practically throughout the entire course of the disease.

The above subdivision of pulmonary tuberculosis into various types is based essentially on the clinical classification of Ornstein, Ulmar, and Dittler. The various types of pulmonary tuberculosis presented above are not serial changes of one lesion. There is no interchange of the lesions. Clinically and roentgenographically, each type runs its own course. More than one type may be present in any one individual, depending upon spills, contacts, dosage, etc. The presence of a cavity always indicates a malignant lesion.

What is the value of this classification? It divides all cases of pulmonary tuberculosis into two main groups. These two groups are designated as benign and malignant. Expressed in other words, the former* requires no active collapse therapy measures (nonsurgical) while the latter does (surgical). The benign group has practically no mortality rate. These lesions run mild clinical courses and their prognosis is good. Surgical procedures in this group only help to inflate statistics which are only apparent and not real; for the end result, as far as the patient is concerned, would have been the same in the absence of any surgical procedure. The malignant group on the other hand has a high mortality rate. These lesions run stormy courses, metastasize, and spread. These lesions are the only one which require, and are actually benefited by, collapse therapy measures. The prognosis in the untreated case is bad. Statistics show that over fifty per cent die during the first year.



Fig. 6 W. G, white, male, aged 58, Fibrosis with numerous small exeavations in right upper lobe; eight year history (malignant productive).

Serial roentgen studies reveal whether a lesion is benign or malignant. This information aids in determining prognosis and treatment, and helps correctly to select cases suitable for collapse therapy. With the increased use of collapse therapy. measures, proper selection of cases is essential, rather than to have the indiscriminate application of procedures in cases in which no such therapy is indicated. The knowledge of the quality of the lesion is essential if the various collapse therapy procedures are to be correctly evaluated. The indications for collapse therapy are gradually being enlarged so that a bilateral pneumothorax, or a partial bilateral thoracoplasty, or a thoracoplasty on one side and a pneumothorax

^{*} The induced pulmonary pathology in superinfections depends upon dosage and virulence of the tubercle bacilli and the response on the part of the host. If, in a given individual, a benign exudative lesion is found, it essentially represents the response to a certain dosage. A malignant lesion may develop in this individual a subsequently, representing a response to a greater dosage. Because of this, individuals with benign exudative lesions should not be hospitalized in tubercular sanatoria, unless strictly isolated.

on the other, combinations of collapse therapy procedures, are becoming more common.

From the clinical standpoint, with the aid of the roentgen studies, this classification is applicable in most cases in a comparatively short time, usually less than three months. A benign exudative lesion cannot be definitely determined from the first or a single examination — serial studies are necessary. This classification becomes of considerable importance in determining management and delivery of a pregnant woman in the presence of a pulmonary tuberculosis. Experience has shown that pulmonary tuberculous lesions -follow a given course irrespective of the pregnancy. The benign exudative lesions undergo resolution in the same manner 'as in nonpregnant cases. This group presents no mortality rate. A comparison of pregnant with nonpregnant individuals ill with a malignant type pulmonary tuberculosis, bearing in mind age groups, duration of illness, etc., shows about the same mortality rate, which is high.

Summary

- 1. Serial roentgen studies permit of a division of superinfections into two groups, benign and malignant, and aid in determining prognosis and treatment. The benign group (nonsurgical) requires no collapse therapy, while the malignant group (surgical) is the only one which requires, and is benefited, by collapse therapy.
- 2. Superinfections are either exudative or productive in character.
- 3. The exudative group presents two benign and one malignant lesion.
 - 4. The productive group presents one
- benign and one malignant lesion.
- 5. The value of the subdivisions into various types lies in: (a) aids in prognosis, and (b) proper selection of (malignant) cases for collapse therapy.

667 MADISON AVE.

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Only fifty per cent of the 4,000 or 5,000 nurses in Brooklyn are capable of giving adequate care, Dr. J. A. Curran, chairman of the Kings County Committee on Nursing, said on Dec. 10 at a meeting of the women's auxiliary of the Kings County Medical Society.

Dr. Curran, in making an advance report, said his statements were based on a series of carefully prepared questions already answered by more than two hundred borough doctors and specialists. The committee desires answers from one thousand on nursing before making public its final report.

"About half of the nurses in Brooklyn are graduate nurses," Dr. Curran said the report revealed. "About one-third of the maternity cases in the borough are superintended by physicians. A nurse assists in seventy-five per cent of the cases.

"Forty-three per cent of the patients in acute illnesses had to shift from graduate to unqualified nurses, and seventy-two per cent of the patients in chronic cases. These shifts were chiefly due to financial reasons.

"Think what this means. In acute illness the need for skilled attention is great enough and with inadequate nursing care in seventy-two per cent of the chronic cases the doctor is hamstrung by inefficient assistance. If the grade of nursing care is sliding downhill, then medical care is retrograding with it."

The present program of school work is too heavy for little children, in the opinion of Dr. Nathaniel Preston Brooks, of Croton-on-Hudson, and causes nervous and mental fatigue. In a paper published in the Medical Record he notes that children of six are required by law in New York State to attend school thirty hours a week instead of an efficiency-maximum of fifteen hours, and twelve-year-olds are doing up to forty-five hours of school and home studying when the maximum should be twenty-two hours.

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EDITORIALS

The American Foundation Studies in Government

We are prone to be "foundation shy ' We fear anything and most things which purport to be in the interest of the "betterment of mankind," and which comes to the public or to us on the letterhead of a foundation Too often physicians have learned of the results of studies and surveys in which medical activity necessarily is a part as being completed without consultation with the profession. It has also been usual for the officers and employees of foundations to publicize addresses and articles advocating medical reforms without having first consulted professional opinion or giving the professional viewpoint thoughtful consideration, and a place in the publicity Nor have we had any part, as a profession, in these studies or surveys

Recently we have had a communication from the American Foundation Studies in Government which was refreshingly new in its approach, in its breadth, and its goal. In the first place, their inquiry is addressed primarily to the profession itself. In the second place, they start their letter of inquiry with the statement "that the American Foundation has nothing to advocate" They have no "preconceived objective—as, for instance, state medicine, group insurance, voluntary or compulsory, ete." They further state, "Our studies are not even based upon a

conviction that any essential change in the present system is indicated" and "that the maintenance of the highest scientific quality in inclical care must always be a primary consideration." They go on to say, "Our general objective is to investigate the degree to which government may wisely serve its citizens within the limits of the parhamentary system."

As far as we have been able, we have investigated the sincerity of purposes of this organization, the people who are backing it, and some of their previous activities. We are satisfied as to their integrity of purpose and honesty of intention

We are therefore advocating that all physicians in this state to whom this inquiry is addressed should accord it a respectful reception and a considered reply. This reply should not be arrived at by collaboration, neither should it be a collective reply from an organized group of physicians. Let us give them what is asked, a personal reply, based upon personal opinion and experience

Never, heretofore, has the medical profession individually been asked what it thought of various proposed social reforms before they were advanced to the public for debate and adoption. Here is an opportunity long sought. Had the official agencies of organized medicine sent out this inquiry and put its official approval and stamp on the formularization and summation of the replies, the result would have been discounted by opponents of organized medicine, because of the very fact that the inquiry originated in organized medicine. The solutions of the problems presented, thus summarized, would have been designated as an officially imposed standpoint. On the other hand, organized medicine, have nothing whatsoever to do with originating this particular inquiry, can with equanimity recommend that physicians everywhere answer it from the standpoint of their own personal observation and knowledge, secure in the conviction that the unsolicited inquiry will disclose what organized medicine has heretofore held, and justify its attitude.

This inquiry, however, must not be construed as a means to justify the stand of organized medical activity. It is wholly an action on the part of the American Foundation. We, however, see here an opportunity to serve by telling this Foundation what we individually know. The New York State Journal of Medicine desires to allay any fears which our members might harbor because of the name of the organization from which the inquiry comes.

Here is a Foundation which is advocating nothing in the way of cheap medical care. They ask information from the one group in the body-politic which, by training, experience, and occupation, is in the best position to furnish it. Here is no set of lay investigators, sent into communities to query former patients and ask the public questions so as to formulate statistics which are to be used to bolster a preconceived idea on the delivery of medical care. Here is not even a formulated questionnaire. Here is a desire for a free expression of your own views. Give them freely, and thus serve both the profession and the community, and perhaps help confused legislators who will be swamped by propaganda from parties interested in schemes involving changes in the delivery of medical service to the people.

The Washington Plan Et Al

It is not unusual for lay organizations interested in "the betterment of mankind" and led by certain of the so-called social service groups, to reach a conclusion upon some scheme for delivery of medical care to the American people, and then popularize it. Finally, with addresses and through the public press, they propagandize it in an attempt to impose it on the whole medical profession.

Now we are being confronted with an almost analogous situation, except that the scheme for the delivery of medical care is propagandized from a rather small medical unit. There is in existence a socalled "Washington, D. C. Plan." It is in operation, sponsored by the Medical Society of the District of Columbia. It has been in operation but a short time. Viewed from the standpoint of a laboratory experiment, even the time element to study results and controls has not elapsed. Nevertheless the proponents for this plan, not satisfied with permitting its inherent virtues to become apparent, are stressing efforts to enforce its adoption upon all of us. Its originator is going into a new community to set it up there. Political efforts are being developed among the delegates to the A.M.A. to give it immediate attention, and an attempt is being made to form a local block among these delegates to sponsor the plan and secure for it A.M.A. support.

Irrespective of its merits and demerits, the Executive Committee of our Society has wisely taken no positive action to influence the New York State delegation. The principles of the Booth Report are still our guiding post. No one scheme is applicable to the whole country. Rural, suburban, industrial, and farming areas offer different angles to the problems of medical care, and each of these differ from the problems presented in large city areas.

Let the profession go slowly in adopting any general scheme. Because one of its features,—the collection of physicians' bills—may be attractive to most of us, is no reason to stop study on the

basic problem of finding a way to bring medical care to those prevented from obtaining it because of financial barriers.

Back to the Dark Ages

The annual anti-vivisection bill is a reminder of the dark centuries when scientists risked good name and life itself to perform the postmortem dissections which furnished the key to so many mysteries of the human body. The knowledge gained from those dearly bought studies brought incalculable benefits to the world. Today medical research is on the threshold of new discoveries which will abolish suffering, improve health and prolong life for millions more. All this the anti-vivisectionists propose to sacrifice to an emotionalism that feeds on shallow sentimentality and disregards the actualities of life.

The Doyle Act, like its predecessors, limits the ban on animal research to living dogs. Unfortunately the dog, of all animals, cannot be spared from the laboratory because of its structural similarity

to man.

The love which the anti-vivisectionists profess to feel for dogs is shared by many physicians. Doctors are not indifferent to the dictates of mercy, either. There is, however, an abnormality, a profound emotional imbalance, in the attitude which prefers dogs to children (as at least one well-known anti-vivisectionist admittedly does) and places the transient discomfort of a lower animal above the permanent welfare of the human race.

The defense of medical science is not the concern of the medical profession alone; and laymen should fight the Doyle bill as strenuously as physicians. If animal experimentation had been forbidden a hundred years ago there would be no toxin-antitoxin, no salvarsan, no insulin—to name only a few of the blessings that have come from research in vivo. If the dog is banned from the laboratory today, the door will be locked on new discoveries that hold equally great promise.

Life Blood of Quackery

A survey of the cheaper newspapers

discloses ample reasons for the persistence of quackery in spite of widespread efforts at public health education. The amount and quality of medical advertising in the yellow press are a revealing index of the taste and conscience of some of the most powerful newspaper publishers in the country. Notorious charlatans advertise cut-rate examinations at institutions that are known to gouge their victims mercilessly. Cures are promised for incurable conditions by dangerous or ineffective methods.

The code of medical ethics forbids physicians to advertise. Unfortunately it is binding only on practitioners who are affiliated with organized medicine and voluntarily subscribe to its precepts. Neither County nor State Society has any disciplinary power over the non-member physicians among whom quackery is principally found.

It is true that the Grievance Committee has authority to act in cases of flagrantly dishonest advertising but it is hampered by many of the impediments of legal procedure. The experienced charlatan knows how to phrase his "ads" to sound like one thing but actually say another.

The only effective cure of this rank evil is to forbid medical advertising altogether. The whole theory of advertising —to break down sales resistance by building up desire or fear-is out of place in medical practice, in which skill and not mass output is the basic criterion of success. The physician who advertises most extensively or cleverly is not necessarily the best equipped to treat disease. On the contrary, the most skillful practitioners have least reason to advertise because the demands on their time usually exhaust their capacity to serve. Advertising in medicine serves the incompetent and the unscrupulous. For the reputable physician it would mean increased overhead as he had to meet the competition of advertising colleagues with larger "ads" instead of greater competence.

The dental profession has banned advertising with benefit to the public and to reputable dentists. Similar amendment to the Medical Practice Act would give

the state a weapon of undoubted value against charlatanry in medical practice.

In the Best Tradition

Under Current Comment in our last issue we called attention to an item culled from Medical Economics of December, commenting upon "Research; Self-Supporting." It was here detailed that research, which is traditionally tied to the apronstrings of benevolent patrons, was giving evidence of declaring its independence, bolstered by royalites from profitable laboratory discoveries. Quoting William Alan Richardson, it was stated that "already three or four of the best known universities have seen their research laboratories turn into self-supporting branches either in whole or in part."

The thoughtful among us can not view with equanimity this trend to commercialize the research from university laboratories. If this trend continues and from more and more of them money research is obtained to bolster up depleted exchequers, it will lose to these research departments the unquestioned acceptance of their findings which, because of the un-commerical connotations of their published reports, they now enjoy. The loss in respect and authority which pharmaceutical research particularly in Germany, underwent immediately following and since the World War, is an analogy in point.

In view of this we commend the wisdom in the announcement of the School of Dentistry of Columbia University recently, (New York Sun, January 17, 1936) that the laboratory discovery of a desensitizer which was discovered by Dr. Leroy L. Hartman will not be patented, but will be published to the profession for its use.

It has always seemed to us a misconception of our ancient traditions to patent a discovery which helps to alleviate human suffering. We always thought that such agents should be at the disposal of the whole profession as soon as the research gave reasonable assurances that it had developed a new means of real therapeutic

value. Nor could we fail to contrast the action of the so-called laboratory research worker and his discovery, with the action of many reputable surgeons to whom it was granted the great privilege of having worked out a new surgical technic to eradicate a lesion, or the clinician who. by study and application of long periods of observation, had established a new clinical These latter,—both entity. surgeon and the clinician,-spend a great deal of their time and their own money travelling about the country, visiting clinics, hospitals, and medical societies, teaching their interested colleagues the new findings, or the new surgical technics. Neither do the institutions in which they work, nor do they personally gain any remuneration from this labor for human-Why should their case differ from that of the laboratory worker in the same institution?

We greet the action announced by Dr. Frederick Coykendall, the chairman of the Board of the University, as a proper step in the right direction, in keeping with the great traditions of medicine and of a great university.

The Legislative Arena

This early in the state legislative halls the trend of legislative activity cannot be predicted. The usual type of amendments to the Medical Practice Law are to be expected. Likewise the usual anti-vivisectionists will attempt to curtail experimental work. In this regard, it is even now evident that peculiarities develop. There is a novel situation developed this Assemblyman Doyle last year served as Chairman of the Public Health Committee which, after studying a similar bill to exempt the dog from medical experiments, refused to report the bill out. Nevertheless, Assemblyman Doyle this year is the sponsor of the bill. One may be pardoned for wondering at the motivation of such action.

The great effort to socialize us will probably again be made by Mr. Epstein. We await the introduction of his health

insurance measure. Measures to protect doctors' fees in the settlement of estates and other matters are developing.

Organized medicine, because of its standpoint that it will support anything and all things which are in the interest of the public welfare, has earned for itself a fine strategical position in the political arena. Let us not relax, but redouble our efforts to maintain this stand.

Writing in Lay Journals

The profession has condoned the action of those of us who write for lay publications when the motive is a public discussion of a medico-economic problem, or is an article purporting to instruct laymen along general lines. In most of such publications, by no stretch of the imagination can the author be accused of self-aggrandizement or specifically calling attention to himself.

The Principles of Professional Conduct, section 31, provides among other things, that "they shall not boast of cases, operations, cures or remedies, nor aid or permit the publication of any of the foregoing in the public print."

We call attention to section 31 because we feel that when medical men write for lay magazines published for lay consumption, detailing themselves, their operations, their cases and their cures, this constitutes, in our opinion, a violation. To our knowledge some of our professional friends have inadvertently fallen into this. To clarify the situation and sound a warning is our purpose.

It requires no great piece of mental activity to reason out to whom an article is addressed, who will be the readers. Then write so,—if write you must,—that good taste and our traditions, including our ancient code, are not violated.

The Annual Meeting in New York City

It is but natural that curiosity should develop regarding the plans in process of development for the next annual meeting. From all sources evidence is accumulating that this year's meeting will have unusual significance and results.

There are pending and originating in the respective county societies, questions of grave moment to us all. These questions are now in the stages of preliminary discussion in the component units of the State Society, and debate and decision upon them necessarily will take place in the House of Delagates. Our organization is truly democratic. Within its frame-work of parliamentary form, we shall work out an approach toward solution of many of our perplexing problems. Organized medicine has won for itself a high place in our body-politic, because we have reached our decisions mostly in the quiet calm of deliberate study, and have stood firm and strong against emotionally inspired appeals and propaganda. Progress has been slow but advances have been made, and ground is being gained in the solution of our problems. Many of our numbers have never observed the House of Delegates at work. The sessions are open to the members. Visit and observe.

On the scientific side, the preliminary work done by the committee headed by Dr. William A. Groat permits the prediction that both the exhibit and the sessions will be interesting and instructive. In addition this year, there is to be a Clinical Day, during which the clinical opportunities of New York City as a center of medical education, will be shown. This will afford the visiting profession not only an opportunity to visit clinics where specified demonstrations will be held, but by actual personal contact with laboratory workers, clinicians and surgeons, a mutual inspirational reaction may result, of benefit to both visitor and demonstrator.

It is too early to publish the names of distinguished foreign and American guest speakers. Acceptances are in hand to warrant the announcement that both the general assemblies and the section meetings are presenting an unusually high scientific standard of work.

Lastly, there will be the banquet for which Dr. Charles Gordon Heyd is de-

veloping a program whose announcement will probably overtax our ability handle the numbers desiring to attend. When applications for tickets to this function are receivable, it would be well for those who desire to attend to send in their reservations early. The committee announces that only one thousand tickets will be sold for this affair.

Last, but not the least important. Members should note that the Waldorf Astoria Hotel has made special rate arrangements with the committee. At the last meeting held in New York City, some of our members fearing the costs of registering as guests at the Waldorf, went to other hotels, and lost the advantages of which they could have availed themselves. It cost them more to stop elsewhere in the city. Our purpose is to again call this to their attention, so that they may profit by the arrangements made for them.

Reserve the dates from April 27 to the end of the week, for an unusual meeting from which to derive not only pleasure and relaxation, but instruction and stimulation. To attend its session will make of you a better doctor, and perhaps also, a happier man!

Metabolism of Malignant Growths

During the past thirty-five years, there has been an intensification in the study of cancer from the experimental viewpoint. The character of the investigation has been formulated in stages.1 From the earlier inquiries concerning the limits of transplantation of malignant tumors and a study of their hereditary nature, a step forward was made in the determination of their rate of growth and the means of inciting such growth. In recent years, attention has been directed toward the metabolism of the cancerous cell and toward the role of endocrine imbalance as a factor in tumor formation.2 These latter studies have added considerably to our

knowledge of carcinomata and allied malignancies.

Warburg³ has demonstrated that cancerous growths have an abnormal carbohydrate metabolism which results in a low respiration within the cell and a consequent high glycolysis. In this absence of oxygen, tumor tissue is capable of manufacturing ten to twenty times as much lactic acid as normal tissue does. Warburg feels, and he has been confirmed in his belief by Dickens,1 Glover,5 and others, that it is the interference with the respiratory activity of a growing cell which, from the standpoint of metabolism, gives rise to tumor formation. Where cell respiration is disturbed, the cell either dies, which is the usual sequela, or it is converted into a tumor cell. Further evidence of metabolic turbances in malignant tumors is shown by the increase of the lipoids and cholesterol, especially marked in cancer of the skin.

Of particular interest is the data derived from the study of carcenogenic hydrocarbons. Not all tars are capable of producing cancer. It was believed at first that the irritation resulting from the application of tar was the causative factor in the production of the ensuing growth. On further study, however, it was found that those hydrocarbons which possessed the property of causing a tumor formation, bore a close structural chemical relationship to cholesterol, ergosterol, vitamin D, bile acids, and most important of all, the male and female sex hormones.7 As early as 1907, Loeb8 was able

¹ Woglom, W. H.: Experimental Cancer Research, Am. J. Med. Sc., 181: 157, 1931. ² Beard, H. H.: Cancer as a Problem in Metabolism, Arch. Int. Med., 56: 1143, December, 1935.

³ Warburg, O.: The Metabolism of Tumors, N. Y., R. R. Smith, Inc., 1931.
⁴ Dickens, F.: Cancer as a Problem in Tissue

^a Dickens, F.: Cancer as a Problem in Tissue Metabolism, Cancer Rev., 6:57, 1931.
⁵ Glover, E. C.: The Metabolism of Human Tumors, Am. J. Cancer, 15:1043, 1931.
⁶ Yasuda, M., and Bloor, W. R.: Lipin Content of Tumors, J. Clin. Investigation, 11:677, 1932.

⁷ Cook, J. W.: The Production of Cancer by Pure Hydrocarbons, Proc. Roy. Soc. Lond.
^e R. 111:455 1032

sB., 111:455, 1932.

⁸ Loeb, L.: Ueber Die Experimentelle Erzeugung von Knoten von Deciduatgewebe, Centralbl. f. allge. Path. u. path. Anat., 18:563, 1907.

to produce uterine tumors in animals by using the secretions of the corpus luteum Conversely, Sussman² observed regressive changes in the cancer of humans who had solutions of the pituitary glands administered to them

As work continues, additional material is accumulated. This seems, to the casual onlooker, a conglomeration of isolated observations which bear no relationship one to the other. In time, nevertheless, these when fitted together, will complete the "jig-saw" puzzle which may lead to the eventual solution of the problem of cancer.

Syphilis. A Dual Problem

Venereal infections, because of the inherent social stigma which always has been attached to them, have confronted the health authorities with their most difficult problem in controlling the spread of communicable diseases In spite of the handicaps encountered, there appears to be a noticeable decline in the number of fresh syphilitic cases in the United States, if one can judge by the statistical report of one of our Commonwealths 1 This report, however, cannot be taken at face value, since the average physician still is reluctant to disclose a victim of syphilis to the guardians of the public health doctors feel that with the modern methods of therapy at their disposal they soon can rid the community of the menace which this disease entails This viewpoint on the part of the physician in charge of a syphilitic patient, is nevertheless not en tirely in accord with the newer experimental work

It was in 1911 that Nogouchi first succeeded in growing spirochaeta pallida in pure culture and was able, from this original growth, to reproduce the disease and then recover the original organism. No

one since has been able to isolate a culture of the organism of syphilis which continues to remain virulent 2 Many have attributed this failure to the presence of the evolutional or the granular form of the spirochaeta pallida, a phase in the developmental life of the organism which can neither be detected by dark field examination, nor by the staming of known infected The importance of the granular form of the causative agent of syphilis is accentuated by the fact that emulsions of human organs in the latent stages of the disease are capable of reproducing a luctic lesion when injected into the testes of rabbits

The equanimity of the practicing physician must be disturbed considerably when he is confronted with the fact that the final word has not been spoken anent the proper regime for the treatment of syphilis. The adherents of Neisser, who contended that immunity to a syphilitic infection was dependent upon the piesence of an active coexisting syphilis with living spirochaetes present somewhere in the body, have in recent years been strongly contested by the followers of the Chesney school, who maintain that an immunity to syphilis persists even if the original infection has been eliminated

If animal experiments can be proven to apply to man, the clinician must eventually know which of the above two theories is right If the Chesney doctrine is proven to be correct, the rapid sterilization of the tissues with spirochaeticides as now practiced may now have to be abandoned in favor of a means of therapy that will per mit the development of an immunity with which the patient can combat the serious. late manifestations of syphilis meantime, the close cooperation of physicians with the health authorities is essential for the isolation of potential sources of infection to the end that the incidence of syphilis may be reduced to a minimim

⁸ Sussman W The Role of the Pituitary in the Development of Cancer Brit Med J 2 794, 1931

¹ Nelson, N A Boston The Decreasing Prevalence of Syphilis in Massachusetts, J M M A, 106 105, January 11, 1936

² Stratton E K Experimental Syphilis Research, A review, etc, Cal and West Med 43 197, September, 1935

CURRENT COMMENT

IN HIS INAUGURAL ADDRESS, Dr. Charles E. Farr, President of the Medical Society of the County of New York, said among other things, "The aims of all of us are essentially the same. We desire to serve the people as best we may, to preserve the dignity of the profession, to eliminate abuses in our own ranks, to prevent encroachment from without and to aid in the progress of the art and science of medicine. . . Now the poor we have with us always, and their care justly belongs to the State until such time as poverty can be eliminated from the State. Physicians should not be asked to carry this entire burden, as for the most part, they have in the past, nor should they and the poor both be exploited by contract practice."

The New York Herald Tribune, January 19, 1936, quoting The Ethyl News, organ of the Ethyl Gasoline Corporation, says of the national wealth, that "the nation's 28,000,000 private homes are a denial of the assertion that sixty per cent of America's wealth is held by two per cent of the people. . . . The source of the 'fallacy' that the ownership of wealth is restricted to the comparatively few is traced to a very limited study of estates probated from thirty-five to seventy-six years ago." . . . "The desirable things,' it is pointed out, 'include 7,000,000 farms with their equipment and livestock and 28,000,000 private homes with everything which they hold, half in each case being owned outright by those who occupy them. Then there are hundreds of thousands of stores, shops, small enterprises; more than a million corporations, of which only 2,500 are large enough to be listed on any stock exchange, more than 45,000,000 individual deposits in savings banks and 10,000,000 memberships in building and loan associations with assets of more than \$8,000,-000,000; 113,000,000 life insurance policies representing actual assets of more than \$21,000,000,000; 20,000,000 privately owned automobiles and other assets whose totals run into unbelievable figures."

"Supporting this interpretation, the analysis says that during 1931 to 1934, the four worst years of the depression, the total national income paid out aggregated \$203,000,000,000, of which \$132,000,000,000, was distributed in wages and salaries and \$33,000,000,000 in withdrawals of shop-keepers, tradesmen and farmers who do not differentiate between wages and profits.

"'This 81.5 per cent of the total national income was paid out to these people; rents and royalties accounted for 2.5 per cent and dividends and other property income ac-

counted for 15.9 per cent,' says the publication."

From the New York Herald Tribune of January 12, 1936, we learn through the report of the American Hospital Association, published by its secretary, Dr. Bert. W. Caldwell, that statistics on hospitalization during 1935 were worse than in 1934. They reveal that 851,774 persons were domiciled daily in the country's 6,437 medical institutions. "One out of every sixteen persons, Dr. Caldwell said, was admitted to a hospital last year, pointing out that 7,465,201 patients were treated during 1935. This, he said, compared with 7,147,416 in 1934.

"Last year the nearly 7,500,000 patients passed 303,288,755 days, or 830,928 years in hospitals. Confinement in 1934 totaled

302,985,770 days.

"While the largest percentage of hospital patients sought surgical relief, he said, approximately 1,400,000 of the total patients for the year represented mothers and newborn infants. Babies born in hospitals numbered 715,000 in 1935 as compared with 701,143 the previous year."

In commenting upon the activities of the Rockefeller Foundation program, Mr. Max Mason, president of the Foundation, said in part, "The determination of sound Foundation procedure in the application of funds to the well-being of man becomes unusually difficult when increased opportunity and need coincide with diminished resources. Such a situation, at a time of rapid change in world conditions, demands the careful thought of those responsible for the selection of the fields and methods of work which promise to yield the most tangible and lasting benefits. These have been the preoccupying considerations for the trustees and executive officers of The Rockefeller Foundation during the past year.

"The Foundation proposes to continue its traditional work in public health, studying, through its field and laboratory staffs, diseases and the control of diseases in their environments, and giving assistance to governmental activities and to the training of personnel."

Medical Record, of January 15, 1936, editorially speaking of freedom of choice, says, "Regardless of whatever plans are proposed for the improvement of existing difficulties in medical practice, none will be adequately effective, from the viewpoint of both the patient and the doctor, unless freedom of choice is maintained. The privilege of the sick man of selecting his own medical attendant has existed from time immemorial, and it is one which he will

relinquish, if at all, with a struggle, and with a great deal of dissatisfaction and regret. The privilege of maintaining a clientele composed of what he has always called his putents, is the only one under which the doctor can give an adequate measure of efficient service.

"The number of plans proposed for the solution of the medico-economic problems of the day is legion. But the principle of freedom of choice is and should be a basic requirement when and if changes are made."

MARGARET MFAD, assistant curator of ethnology at the American Museum of Natural History, after a visit to Samor recorded her observations in an account called "Coming of Age in Samoa" This is commented on editorially in the January 15, 1936, issue of the Medical Record, as follows, "Her object was to contrast the factors and problems of adolescence in a primitive society with those in modern lands As it is not unreasonable to infer, the advantages were found to be entirely on the side of Samon If the neuroses arise from the conflicts and restraints and suppressions incident to the complicated and artificial modes of civilization, are they absent in a state of nature? Does freedom of expression and action eliminate nervous instability? Is a cramped and warped and unbiological mode of sex education and sex behavior productive of nervous and mental illnesses?

The answer is simple, using Samoa as a typical society There is an appalling lack of neuroses in Samoa There is no such state as sex-ignorance Familiarity with sex is part and parcel of education along all other lines as a natural process of growing up The older teach the younger There is the recognition of a need of a technic for the dealing with sex as an art, with the consequence that there are no neurotic pictures, no frigidity, no impotence, no false prudery, no undue stress on infidelity, no concern over illegitimacy or premarital relations There are, of course, certain standards certain tabus, certain matters of good taste and conduct But the morals are guided by one important principle, biological and sociological sound-Onanism is made nothing of, homosexuality is but a passing phase, manners is one of the determinants in promiscuity, and a sense of guilt is hardly an issue Sex expression is relatively and sufficiently, though not exclusively free, and with the acceptance of a wider range of the normal, conflicts are at a minimum Suppression seems to be the price of civilization, with the neuroses as the main by-product"

THE EDITORS OF Today, January 18, 1936, say, "Those who watch the housing situation

are becoming deeply concerned over the shortage of dwelling quarters. Vacancies, which were 8 per cent at the depth of the dupression, have sunk to 3 per cent. Since more thin 3 per cent of the dwellings in any American city are unfit for occupancy, it follows that we have a situation in which it is impossible to undouble the families that are living together, to provide new homes for new families or to ofter any choice of homes at all. In plant language, this means the landlord has the whip hand and will begin to use it as soon as he can And the end of that is rent roots, rent laws and general discontent."

DEMANDING PAY FOR DOCTORS WORKING IN clinics and dispensaries, the Bronz County Society Bulletin for January, says, "The Bronx County Medical Society (through its Committee on Clinic Physicians) is calling a mass meeting of all dispensary doctors This represents the first in the county step in the Committee's program of carrying out the resolution unanimously adopted by the Society at its June meeting purpose of the organization is to improve the clinics for the patients and to secure pay for the doctors who treat them There can, of course, be no objection to the eradication of clinic abuses Indigent patients (and no others) are entitled to the best treatment in the clinics that modern medi-cine can offer Their rights to courteous and humane attention cannot be denied there is no reason why the doctors who render the protessional services should not receive some remuneration. The burden of clinic work, unfortunately, falls almost entirely on the younger men who can least afford to give their services giatis

"Objections have been raised as to the wisdom of being on the hospital's payroll It has been claimed that the doctors will be required to punch a time clock, that only a minimum staff will be retained, and that clinic appointments will become political plums. These are minor considerations. A very strong organization will be needed to convince the city authorities that clinic physicians must be paid, and only such a strong organization can prevent the exploitation of its members. A clinic cannot exist without doctors!

"Help your County Society to help you! If you work in a clinic don't fail to attend the meeting at Elsmere Hall on Friday"

THE EDITOR OF THE Bulletin of the Central Medical Council of Brooklyn, in the January issue, speaking upon the inherent qualifications of the physician, says as follows "It is essential that the moral character of the young man aspiring to become a physician must be far above average, for

the avenues opened up to him in the practice of his chosen profession are lined with allurements and the social pressure brought to bear upon him during lean and thankless years is not inconsiderable. He must be possessed of sound judgment and able to estimate true value, for this is present in every case he undertakes to handle, and besides medicine, as it advances, is no less free from follies and fads than any other phase of life. It is necessary for him to be ingenious because occasions will arise from time to time when no text book learning will apply, but he must, through his own inventivity work out to a solution the problems that are pressing. Penknife tracheotomies and kitchen table appendectomies still exist in a hundred different forms. The young man must be versatile. Without exception, the practice of medicine takes into practical account more of every field of learning than any other occupation or profession under the sun. He must be willing and capable of shouldering responsibility. At times it may be necessary to be bold, strong enough to face the unknown, stout enough to withstand whirlwind disaster of a suddenness greater than that of torna-If surgery is in his does or lightning. realm he must constrain himself to honestly opine to do so notwithstanding persuasive opinions and tactics of others and strike freely when that is the action of choice. He must be a good sportsman, cooly cal-culating his odds and the stakes for which he plays. It may be necessary to take chances when the situation demands and be unafraid. His command of speech must be extraordinary, for people in distress cling to the words of the physician. He must know when to talk and when to remain silent. Other qualities that may be mentioned are those of patience and persuasion, for he must make others share that patience with him. He must be undisturbed with little set-backs that occur along the course of every critical illness and must never be the subject of panic. Frequently, in the course of a physician's career, he will meet those who are ungrateful. To this ungratefulness he must be insensible. He must be forgiving and charitable. The patient whom he has served faithfully and who repays his labors with insult and then later returns in distress and demands his services, he must meet kindly without vindictiveness. Lastly, this trend of thought brings to mind the words of one of our physicians at the hospital who preaches that the physician must be as a father—understanding, guiding, advising, admonishing, gentle but stern when the occasion demands and ever with the interest of his fellowman at heart in a measure at least commensurate with his own.

"A superman—yes—that is what the patient asks of him and it seems that, in times like these, that is what the world expects."

CHARLES G. DAWES, former Vice-President of the United States, in a statement published by the Saint Louis Medical Society Bulletin, Volume III, Number 1, says as follows, "If you work in a profession, in Heaven's name work for it. If you live by a profession, live for it. Help advance your co-worker. Respect the great power that protects you, that surrounds you with the advantages of organization, and that makes it possible for you to achieve results. Speak well for it. Stand for it. Stand for its professional supremacy. you must obstruct or decry those who strive to help, why-quit the profession. long as you are a part of a profession, do not belittle it. If you do you are loosening the tendrils that hold you to it, and with the first high wind that comes along you will be uprooted and blown away and probably you will never know why." The Bulletin suggests that this be adopted as our motto.

"The quality of medical service which is one of the outstanding features of American medicine, must be maintained. Every medical society is the natural guardian of the quality of medical service given in its locality. If this quality deteriorates, the battle is lost no matter how widely that service is spread or whatever may be the method or the amount of payment." Thus does R. G. Leland, M.D., of the A. M. A. express himself in the January issue of the Westchester Medical Bulletin.

ON JANUARY 8, the annual report of the United States Public Health Service was made public. "Among the facts recorded in the report were:

The 1934 death rate of 10.9 per 1,000 population was lower than any recorded

earlier than 1932.

The 1934 birth rate broke the downward trend of thirty years.

The 1934 infant mortality rate was lower than any before 1932.

During 1934, there were no cases of cholera or yellow fever and only one death from the dreaded plague.

Studies of the effect of the depression showed 'no striking differences' in children's weight but general increased sickness among the 'depression poor.'

Dr. Cumming said that the 1934 death rate of 10.9 was slightly higher than the record low of 10.5 in 1933.

Doctors generally agree that the depression may have had little influence on the

slight rise in the 1934 death rate. They pointed out that with the lengthening of the normal expectancy of life the death rate would go below 'normal' while this stretching out was taking place. Then the death rate would increase slightly and remain fairly constant

The 1934 birth rate was three per cent higher than in 1933, the report showed. That meant that 94,000 more babies were born in the nation in 1934 than in 1933. The trend for births has been downward for

more than three decades.

In 1934, 599 out of every 1,000 babies born died during the first year of their lives. The previous year 582 died. The 1934 rate was lower than any year earlier than 1932." The foregoing is from the New York Herald Tribune of January 9, 1936.

Dr. Grorge R. Harris of Pittsburgh, Pennsylvana, under date of January 13, 1936, writing in *The New York Funes* of January 17, 1936, says, ". When health insurance is characterized by Dr. Kingsbury as the Cinderella of the security bills, is not that comparison a little unfortunate? If memory serves, Cinderella's family was a rather scurvy lot. Does he imply that the other social security bills are comparable to the greedy, selfish sisters? Possibly he is correct.

"Dr. Gray attempts to pour oil on the troubled waters by stating that 'we do not want to revise fees, or add to expenditures'. Dr. Gray drew up the Model Health Bill, and he should know that in Pennsylvania the enactment and application of his bill would have added approximately \$90,000,000, yearly to the costs of running the State Is \$90,000,000 for one year no addition to

expenditures?

"There is nothing to clear up, so far as the medical profession is concerned, about health insurance, nor have we been under any misapprehension regarding the motives behind this unwarranted and unwanted interference with the rights and duties of a profession with a long and honorable record of service to humanity. But the public should be informed that for every doctor in a health insurance plan there is always one lay position, sometimes more.

"With the health record, the morbidity record and the overburdening cost against health insurance plans, it is high time that the motives behind the efforts to force such plan upon the citizens be brought out. Can it be that jobs under such a scheme would influence professional agitators to create

a demand for a supply?

"It is too bad that Mr Epstein and Dr. Kingsbury descend to such charges and muendo in what should be calm and dispassionate discussion of the sickness insurance question. The medical profession is well content to stand on its record of service, with and without pay. It ill becomes a profession such is that of social service—if it can be called a profession, after less than thirty years of existence—to prate of service when that so-called service has always been fully recompensed."

FROM THE EDITORS OF Today, in the issue of January 11, 1936, we find the following: "Man cannot plan even his own individual actions for a day ahead, says Dr. P. A. Sorokin of Harvard, when he does, he invariably discovers that he has failed by about twenty per cent to accomplish what he set out to do From this, the eminent sociologist argues that it is futile to plan for the future of society Well, another sage once remarked that if at the end of a day a man discovered that he had accomplished all he set out to do, it merely proved that he did not set out to do enough the copybooks used to put it, with Spencerian flourishes, 'Not failure, but low aim, is crime'"

THE DOCTOR AND THE FACTORY

Study of amendments to proposed rules and regulations to govern medical bureaus in industrial plants servicing workmen's compensation cases is now being made by a joint committee of industrial and labor representatives and members of the State Medical Society. Under the Workmen's Compensation Law as amended by the last Legislature medical bureaus may no longer be operated in compensation cases by insurance carriers, and medical bureaus in industrial plants must meet the approval

of the medical societies of the counties in which they operate before they may be licensed by the Industrial Commissioner

At a recent hearing in New York city on these rules the question finally resolved itself into whether a physician must be in constant personal attendance at such a bureau or could give personal supervision and be available at all times. This is the principal question which the joint committee of industrial and labor representatives and physicians is now considering.

PROCLAMATION

STATE OF NEW YORK EXECUTIVE CHAMBER ALBANY

As the late winter season approaches each year, the peak of pneumonia is reached in this State. The State Department of Health, working with the Medical Society of the State of New York, the State Association of Public Health Laboratories, the Metropolitan Life Insurance Company and the Commonwealth Fund, has inaugurated a united effort which will have as its objective the saving of 3000 lives each year from pneumonia.

The public must be informed that early recognition and medical handling of pneumonia cases is just as much an emergency as acute appendicitis or diphtheria, and that proper nursing care is essential. Many neglected colds develop into pneumonia. If the disease occurs, science has provided serums for certain types of pneumonia which aid nature in a cure. I have recommended to the Legislature an additional appropriation for the purpose of making such serum available to the people of the State. Science, however, is helpless unless the people themselves cooperate fully in using the knowledge which science has made available.

I am convinced that the organized forces of medicine and public health can call to their assistance civic bodies, welfare agencies, industrial and labor groups, the schools, churches, newspapers and radio stations to lead the public as a whole to a better understanding that many cases of pneumonia can be prevented and that many lives can be saved from this cause.

THEREFORE, I, Herbert H. Lehman, Governor of the State of New York, do hereby proclaim the period from January 15 to February 15, 1936, as a season for all citizens to join in a common effort to reduce the number of pneumonia cases and deaths, by disseminating knowledge of prevention through simple health rules and by prompt action in securing diagnosis and treatment where pneumonia is suspected, and I do hereby urge the people of the State in their several capacities to join wholeheartedly in this important endeavor.

(L. S.)

GIVEN under my hand and the Privy Seal of the State at the Capitol in the City of Albany this fifteenth day of January in the year of our Lord one thousand nine hundred and thirty-six.

BY THE GOVERNOR:

(Signed) HERBERT H. LEHMAN

(Signed) Walter T. Brown Secretary to the Governor

Correspondence

[The Journal reserves the right to print correspondence to its staff in whole or in part unless marked "privale." All communications must carry the uniter's full name and address which will be omitted on publication if desired. Anoxymous letters will be disrecarded]

667 Madison Avenue, New York City

To the Editor:

In your editorial "Nonspecific Colitis" in the issue of December 15th you state in part "Continued investigation into the history of patients suffering from a colitis of undetermined original together with extensive tests to determine the presence of sensitization will add further to our knowl-

edge of this subject."

I am taking the liberty of enclosing a reprint showing that a great amount of work has already been done and that in my humble opinion nonspecific ulcerative colitis is directly due to bacillary dysentery. The follow-up studies of the Jersey City epidemic show that 10.7 per cent developed chronic ulcerative colitis at the end of 9 to 12 months. This figure includes only cases proven by roentgenographic studies sigmoidoscopy.

Faithfully yours,

Joseph Felsen, M.D.

December 20, 1935

[The reprint was of an article written by Dr. Felsen which was published in this Journal June 1, 1935, p. 576—Ed.]

313 East 86th Street New York City

To the Editor:

Reading your article "Germany Today in International Science Meetings" (January 15, p. 122), I feel inclined to ask you why you with the others pick out only Germany as your target. I personally don't like what you call goosestepping in art and science, and rather give up my work than submit to an unwanted dictation. I think whenever we want to fight for the precious gift of freedom of science we should look upon Russia and Italy as the greatest offender. Both countries are inviting scientific meetings and many scientists of international fame have been attending meetings both in Moscow and Rome. In spite of the fact that Russian scientists of the old regime have suffered a fate so terrible that it is without parallel in history, we have not heard of anybody suggesting recently to isolate Russian scientists who willingly submit to the bolshevistic doctrine.

But why go so far? Recently we could

read about the indictment of a whole university in the United States located in one of the centers of industry. The evidence brought out and published in our papers proves that a dictatorship is in existence there exercised by a group of bankers and industrial magnates. It seems that it effectively strangles free thought and independence in scientific research much more than a national dictator can ever hope to accomplish. At least in a country like Germany the dictatorship has been brought about by a large majority vote of the whole population and if they grieve about it today in certain quarters they are only to blame themselves, but in our particular case right here in the United States, there are only a handful of so-called powerful men, who dictate to every professor, what he is supposed to say or to discover. If I would have to choose between the two I would prefer a national dictatorship and try to live under the illusion that it is wartime, when even in the most liberal country everything is subordinated by force to only one aim. Don't we have enough experience in this matter?

After all, it seems that only a man financially and politically independent, who is able to support himself and his work out of his own material means, can call himself free. But where in the world is this man to be found? Maybe we are incorrect in thinking of individual freedom in all human endeavors, maybe we have to get used to a more collectivistic nomenclature. We should have learned by now that everything is

"relative" in life.

Very truly yours, EDMUND F. KOHL, M.D.

January 19, 1936

[Note:—Our correspondent missed the point of our editorial entirely. We are here concerned not with the action of Germany toward her own men of science, or what she does or does not do to them. We are very much interested and protest the machinery set up to utilize international scientific gatherings for Nazi purposes. Neither Russia nor Italy ever did this. We are not concerned with dictatorship per se. Finally, at this time, we are unconcerned as to local suppression of free scientific expression. We object to measures designed to control international congresses which may meet in Germany.—Editor.]

Society Activities

Committee on Workmen's Compensation

COMMUNICATION No. 12

The Subordination of Fees. The amended Workmen's Compensation Law directs that the Industrial Commissioner shall remove from the list of approved physicians one who "has participated in the division, transference, assignment, rebating, splitting or refunding of a fee for medical care under this chapter."

Some hospital superintendents are making suggestion to their staff physicians that after the physician has rendered his bill and receives the check that he immediately make it payable to the hospital for some institutional project or for the use of the staff generally.

May we remind physicians of New York State that this constitutes "subordination of fee" and lays the physician liable to removal from the list of approved physicians.

Some hospital superintendents are proposing that the hospital act as agent for the pathologist and roentgenologist and for other physicians of the staff organization for the purpose of rendering of bills under the Workmen's Compensation Law. As we understand the law, "agency" is only provided for a deceased physician when his affairs are in the hands of an executor or other "agent" of the estate. The bill for professional service must be made in the name of the physician rendering the service and must be paid to him. We are aware that some hospitals are violating the Law in this respect. It may be necessary to cite these violations of the Law to the Attorney General for legal action, if such violations are continued.

Perhaps some violations of the Law are escaping our notice. Any information mailed to this Committee or to any member thereof will be held confidential insofar as its source is concerned. It is our purpose to protect the profession against further exploitation. The Law is clear, it is up to each individual physician to cooperate in its enforcement.

Charles Gordon Heyd, M.D., *Chairman*. David J. Kaliski, M.D. Frederic E. Elliott, M.D.

Rules and Regulations Promulgated by the Industrial Commissioner Covering Chapters 258 and 930 of the Workmen's Compensation Law

1. All doctors whose applications have been disapproved by the various County Medical Societies may continue to treat workmen's compensation cases until a final decision is rendered by the Industrial Council.

2. All reports, except Form C-104, filed by attending physicians and specialists should be verified before a Notary Public or a Commissioner of Deeds, to insure their value as prima facie evidence in a compensation case.

3. In the event of a serious accident requiring immediate emergency medical aid, an ambulance or any physician may be called

to give first aid treatment.

4. Homeopathic and osteopathic societies and boards should receive applications from homeopaths and osteopaths only and recommend for authorization to treat workmen's compensation cases only homeopaths and osteopaths.

5. All specialists, consultants, etc., shall submit a report of their findings in triplicate; one copy to the Industrial Commissioner, one to the attending physician, and one copy to the employer or insurance carrier. If the specialist acts as attending physician, he should file a forty-eight-hour

report with the employer or carrier and with the Industrial Commissioner.

6. A registered physiotherapist may treat workmen's compensation cases at his own office or bureau when the case is referred to him by an authorized physician. The authorized physician should, however, give written directions to the physiotherapist as to the kind of treatment to be rendered and the number of treatments to be given. These directions must be given in writing by the physician and shall constitute a part of the record of the case.

7. Removal of physicians from panels. Section 13-D. (a) The doctor accused of misconduct shall be notified of the charges in writing by the Medical Society or Board that recommended him. He shall also be notified as to the date and time of the hearing. (b) Careful records shall be kept of the minutes of the hearing. (c) These records, together with the report of the Board of the Medical Society or other Board, with its findings, shall be submitted to the Commissioner.

Appeal by physicians to the Industrial Council to be referred to a Sub-Committee to report findings to Council. (a) The doctor appealing and the Medical Society or

other Board shall be notified in writing as to the date of the hearing (b) The doctor may be represented by counsel (c) Accurate stenographic or stenotype minutes of the hearing shall be kept for the files of the Commissioner and Industrial Council (d) Findings of the Committee shall be submitted to the Industrial Council for final action

8 Arbitration of Medical Bills -A panel of physicians is to be appointed by the Presi dent of each County Medical Society, who shall submit the names of the physicians on the panel to the Industrial Commissioner The Commissioner shall, when arranging hearings on medical bills, select two members of each Arbitration Committee from this panel, and two physicians are to be selected by the employer or insurance carrier from the membership of the Medical Society of the State of New York, qualified under this Act, for each arbitration session, the Industrial Commissioner to set the dates for all hearings and notify all interested parties The Arbitration Committee shall submit to the Industrial Commissioner its decisions on a form prescribed and provided by the Industrial Commissioner, who will then for ward notice of decision to all interested parties. If the physician whose bills are be ing arbitrated is a member in good standing and duly qualified by the New York Osteo pathic Society or the New York Homeopathic Society, the members of such Arbitration Committee are to be appointed similarly and shall consist of physicians of such organizations, the president of such organizations to make the designation pro uded herein

In the event of disagreement as to the value of medical services rendered a hear ing shall be held in the county in which the doctor practices or in which his main or principal office is located Notice of this hearing shall be sent to the doctor or hos pital who rendered the services the employer and the insurance carrier, any of whom may appear or be represented, if they so desire The Arbitration Board shall pass upon the matter in dispute in accordance with Section 13 G of the amended law

Careful records of the hearing shall be kept in the office of the County Medical

Society

In the event of disagreement as to the value of medical services rendered by members of the New York Osteopathic Society a hearing shall be held at a location convenient to the interested parties. The Industrial Commissioner is to select two members from the panel of physicians appointed by the President of the New York Osteopathic Society, for each arbitration session, and the employer or his insurance carrier is to

select two arbitrators from the membership of the New York Osteopathic Society who have been duly qualified under this Act

The Arbitration Committee shall pass upon the matter in dispute in accordance with Section 13 G of the amended law

Careful records of the hearing shall be kept in the office of the New York Osteo

pathic Society

9 In the event of rejection of a physician by a County Medical Society or other Board, the jurisdiction of the County Medical Society or other Board has terminated and it cannot reconsider its action Each County Medical Society or other Board must pass upon the application of each physician within thirty days of the receipt of the application and notify the Industrial Commissioner of its action

10 Bills for x rays and consultations shall be submitted for payment directly to the employer or carrier by the specialist render-

ing the service

11 A hospital may not secure a license to operate a medical bureau to render care to

compensation cases

12 No insurance company or self insurer may reduce the size of notice to employees (Torm C 105), which is to be placed in all places of employment covered by the Act, unless such permission is granted on application to the Industrial Commissioner

13 Physicians treating claimants in hospitals may secure the signature of claimant for authorization to obtain copies of any

necessary hospital records

14 The physician in attendance in public hospitals must be the judge as to when the "emergency status" of the case has terminated In case of a dispute the matter shall be referred to the Compensation Board of the Medical Society of the County in which the hospital is located, for immediate decision

15 Medical inspectors of insurance companies shall be admitted to hospitals or other institutions where injured employees are confined upon proper identification, for the purpose of complying with Section 13-7

16 No license is necessary to operate a first aid station for emergency treatments, but no subsequent treatments are to be rendered by anyone other than a qualified physician

17 The physician in attendance must seek authorization for a specialist first from the employer or carrier. If unable to secure it he may apply to the Industrial Commissioner in accordance with Section 13 A 5

18 The authority of an employer for the services of a specialist in excess of a \$2500 fee, applies only to the necessity for such services, but the choice of such specialist is

entirely within the jurisdiction of the injured worker.

19. All medical bureaus and laboratories in operation on July 1, 1935, shall be charged a license fee, effective July 1, 1935, to and

including June 30, 1936. 20. When it is in the

20. When it is in the interest of the injured employee, and where an x-ray is required and it is impossible to secure the services of a qualified x-ray specialist, the Board of the local County Medical Society may designate a specially qualified individual to take x-ray pictures under the supervision of the attending physician. The attending physician, however, shall render a bill for such service to the employer. This in no way, however, deprives the employer or insurance carrier from having other x-ray pictures taken if they so desire.

21. No advertising matter of any nature, on compensation work, by authorized physicians, medical bureaus, or laboratories, will

be permitted.

22. All County Medical Societies and other Boards shall be instructed to first investigate all complaints submitted to them, and if the evidence warrants it, charges shall be preferred against the physicians, after which the physicians shall be notified in writing of the charges, as well as given a bill of particulars, so that they may be in a position to defend themselves properly at the hearings.

23. Physicians authorized to treat workmen's compensation cases, when requested to supersede another physician must, before beginning treatment of such patient, make reasonable effort to communicate with the attending physician to ascertain the patient's condition. The superseding physician must also advise the attending physician of the name of the person who has requested him to assume care of the case and state the reason therefor. If the second physician cannot contact the attending physician, and the claimant's condition requires immediate treatment, the said physician should advise the doctor previously in attendance, with forty-eight hours, that he now has the patient in his care.

24. Hospitals shall render bills for board and room accommodation, medical and surgical supplies, nursing facilities, and routine laboratory service. Bills for all services rendered by physicians in hospitals, including physiotherapy, x-ray, pathology, anesthesia, medical and surgical care, etc., shall be made out separately and paid directly to the doctor rendering the service.

25. All medical reports filed by attending physicians and specialists must contain the authorization certificate number and code

letters.

ELMER F. ANDREWS Industrial Commissioner

January 3, 1936

Committee on the Study of Tuberculosis and Workmen's Compensation

A PROGRESS REPORT

I. Introduction: In the Spring of 1934 Dr. James Alexander Miller, for many years president of the New York Tuberculosis and Health Association, made the suggestion that, after long experience with tuberculosis cases, he thought it most important that a study should be set up as a result of which it might be possible to prepare standards for the determination of causal relationship and tuberculosis. Dr. Miller indicated that, among other things, great doubt existed as to the effect of accidents in the aggravation of an old tuberculous lesion; and also as to the time element involved in any such aggravation. In other words, was it necessary for active symptoms to develop a day, a week, a month or six months after the accident? These are extremely important matters from a medicolegal point of view, and it was Dr. Miller's thought that a properly organized study should lead to the formulation of a definite standard in the determination of causal relationship.

II. Preliminary Study: Following this suggestion, a small committee was organized

to arrange for a preliminary investigation on the basis of which the larger study could be made. An appeal was made to the New York Tuberculosis and Health Association to undertake this task. As a result, a careful analysis was made over a period of months of a fairly large number of closed cases in the death file of the Department of Labor. All these cases involved claims for compensation on the basis of pre-existing tuberculosis. The complete files were read, the pertinent data tabulated, and much interesting information was made available.

III. Organization of the Committee: As a result of this preliminary investigation and analysis of closed files, the full Committee on the Study of Tuberculosis and Workmen's Compensation was organized under the chairmanship of Dr. James Alex. Miller, including Drs. Edward P. Eglee; Roscoe N. Gray, Surgical Director of the Aetna Life Insurance Company; Oswald R. Jones; Adrian Van S. Lambert; Raphael Lewy, Medical Director of the Department of Labor; Edward Nash, Medical Director of the State Insurance Fund; Max Tasch-

man; Mr. Verne A. Zimmer, Director of the Division of Workmen's Compensation of the Department of Labor; and Dr. Jacob A. Goldberg, Secretary, Full cooperation was pledged by the New York Tuberculosis and Health Association, National Bureau of Casualty and Surety Underwriters, National Council on Compensation Insurance and, above all, by the New York State Department of Labor. The study was immediately set afoot and the first examinations were made in lune 1934.

IV. Objects of the Study: The objects of this study in the main were (a) to determine criteria of causal relationship between industrial accidents and conditions to pulmonary tuberculosis: (b) to determine criteria of disability from such tuberculosis, including criteria of total and partial disability and the duration of the disability; (c) to determine criteria of activity of the disease; (d) incidentally, the study will include criteria for the diagnosis of the presence of pulmonary tuberculosis. These objects have been borne in mind in the work of the Committee, and an analysis of the situation based upon the experience, is being made in order to furnish a basis for further progress during the coming year in the determination of the final criteria which may be determined.

V. Methods Pursued: After the organization of the Committee, the machinery was set going. Arrangements were made for all cases referred by the Department of Labor to be examined at an impartial place in the midtown area of the city, i.e., at the Bellevue-Yorkville Health Center, 325 East 38th Street, New York City. The procedures followed in the examinations are herewith detailed:—Cases from the Department of Labor, in which there is a question of casual relationship and tuberculosis, are sent to the Secretary. He then has the files carefully studied, pertinent data copied out, all medical records completely transcribed, medical testimony and other pertinent testimony likewise transcribed, and pre-pared for the permanent files of the Committee. The claimant is then requested to come for preliminary examination. This includes the taking of a chest x-ray, the collection of sputum for concentrated analysis, the taking of a complete industrial history, a history of previous illnesses, history of present complaints, history of accident and injury in detail; temperature, pulse, respiration and weight are also recorded; and certain other data are set down in an especially prepared form. The applicant is then told to return within a few days when the results of the x-ray are available and the sputum has been examined. At this second appointment a committee of three impartial tuber-culosis specialists, who serve as the experts, are prepared to examine the applicant. This committee is a special panel appointed by the State Industrial Commissioner, and consists of Drs. James Alex. Miller, J. Burns Amberson, Jr., Edward P. Eglee, Grant Thorburn, Max Taschman, and Oswald R. Iones.

The patient goes to the first specialist to whom is given the complete transcribed file, the x-ray taken at the previous appointment, all x-rays which have been obtained through cooperation of the Department of Labor or the carrier, and all data obtained from the patient. A careful examination is then made of the claimant and the information is recorded by the examiner. He is then examined a second time and independently by another member of the panel who goes through the same procedure, without having available the report of the first examiner; thereafter he goes to a third examiner who goes through the same process. After he is independently and completely examined by the three medical experts, the three physicians discuss the case among themselves and decide on the opinion. In order to facilitate matters, one member of the Committee serves as chairman and signs, in affidavit form, the final report which goes to the Department of Labor; the names of the other two physicians are entered on the record as concurring in the report.

The question has arisen as to what is done in case one of the Committee does not agree with the other two. This has happened in only one case so far. In such case, a second panel of three imparital experts, also appointed by the Industrial Commissioner, is called in and the claimant is completely re-examined on the basis as outlined. The second panel agreed unanimously with the majority opinion of the first panel. This is the current procedure.

VI. Financial Arrangements: The plan pursued in financing this study was agreed upon after consultation with the Industrial Commissioner and with representatives of both mutual and stock insurance companies. It was suggested to the carriers particularly that it would be necessary to have a minimum fee of \$50 per case in order to cover the cost of the work of the Committee. There was strenuous objection on the part of some of the representatives of the carriers to this figure and a compromise was finally affected whereby a fee of \$40 was to be paid until some experience had been had with this fee arrangement. This plan was in effect for approximately one year, after which it was found necessary to have this fee increased to \$50. The original fee of \$40 would have been adequate if a large enough number of cases had been sent for examination by the Committee.

Arrangements are made for the examination of three claimants at each clinic session. The fee received covers compensation to each of the three examining physicians who receives \$25 for serving as an examiner of three claimants in an afternoon, the cost of x-ray services, laboratory service, secretarial, stenographic, messenger service, supplies and equipment, transportation, printing, postage, and other incidentals. The Treasurer of the New York Tuberculosis and Health Association serves as Treasurer of the Committee, and all checks received from the carriers are turned over to the Treasurer of the Association, who keeps a separate account for the purposes of the Committee.

The standard fee paid to the medical examiner for testifying at a hearing in the Department of Labor was fixed by agreement at \$25. Bills for such amounts are forwarded to the carriers or claimants' representatives through the Division of Workmen's Compensatios, Department of Labor.

Since the inception of the Committee's work, the impartial medical experts have been called upon to testify in a relatively few cases.

VII. Results Thus Far Achieved: It was originally intended that a total of 500 cases would be examined within a period of one year or thereabouts, and that these cases would be studied and followed up within the second year. Due primarily to the lack of employment in the heavy industries in New York City and State, a comparatively small number of cases have been referred to the Committee. To date a total of ninetyseven claimants have thus far been referred for examination. It is too early to speak of results except to indicate that the work of the Committee has elicited the interest and hearty cooperation of the carriers, the claimants and the representatives of the Department of Labor.

The results of the first year's study are now being analyzed from the standpoint of the four primary objects of the study, but the data available are still insufficient on which to base any conclusions. These will not be reported upon until the study as a whole has been concluded.

VIII. Termination of the Study: In the discussions preliminary to the formal undertaking of the study, the Committee was led to believe that a total of 500 cases would probably be referred for study within one year after examinations were started. The

Committee thereupon assumed that the medical examinations would be completed within one year and that phase of the study terminated at that time. However, as already indicated, the marked and continued depression in the building and other heavy trades and industries naturally brought with it a marked decrease in the number of industrial accidents, particularly those in which the Committee was interested.

The Committee has decided that a special study of this kind by a small group should be definitely limited in time, and consequently it is planned to discontinue medical examinations after December 31, 1936, and to base the formulation of standards and the final report on the total number of cases already examined and those to be referred and examined during the year 1936.

When the final report of the Committee is presented, it is hoped that we may have agreed upon other definite standards upon which to base the criteria originally determined as the main objects of this study. In addition to this, it is hoped that the type of organization which has been in operation in making this study may assist in the more successful operation of a special panel of specialists to be selected and operated under the provisions of the revised Workmen's Compensation Act, and that consequently it may be of definite assistane to the Industrial Commissioner and also to the representatives of the county medical societies who are charged with the responsibility of selecting those specialists.

IX. Summary of Financial Statement: The following is a summary of the funds received and expended, as prepared by the Accountancy Division of the New York Tuberculosis and Health Association:

Receipts (June 1, 1934, to November 30, 1935): Total collections from Insurance Com-

panies

Dishursements (June 1, 1934 to November 30, 1935): Physicians, for services rend-\$2,125.00 1,315.00 308.32 89.30 125.49 37.00

Total Disbursements to November 30, 1935

4,018.46

Excess of Receipts over Disbursements ...

\$6.54

In addition to these contributions made through the insurance companies, the New York Tuberculosis and Health Association has contributed up to the present time, through the services of its staff and organization, equivalent to \$2,500 for which it has not been reimbursed.

Committee on Legislation

Bulletin No. 1

January 8, 1936

The 1936 Legislature has started its work in a very businesslike way. Both houses are organized and have received bills and already there are quite a number introduced in which we shall have a very definite interest. We shall report in our bulletins all of the bills that have any direct bearing on the practice of medicine or public health and some others that may have an indirect bearing on these subjects or the welfare of the physician, as, for instance, amendments to the Welfare Law, the County Government Law, Tax Law, etc. To date the following bills have been entered upon the docket:

Senate Int. 12-Buckley; Assembly Int. 30-E. F. Moran; to amend the Judiciary Law by providing jury duty exemption only for lawyers, doctors, clergymen, firemen, policemen, U. S. Soldiers and sailors and ship's officers. Referred to the Judiciary

Committee.

Comment: This bill is identical with the one we considered last year, introduced by Senator Buckley. It exempts physicians who have patients requiring daily attention.

Senate Int. 17-Fearon; Assembly Int. 51-Parsons; County Law, for optional forms of county government to be known as the elective county executive form, appointive county executive form with full administrative powers, appointive county executive form with restrictive powers, board of district supervisors form and board of supervisors form. Referred to the Internal Affairs Committee.

Senate Int. 20-Desmond, County Law, for optional forms of county government to be known as county mayor, county manager, county director, and county board forms. Referred to the Internal Affairs Committee.

Comment: Two forms of suggestive

county governments.

Senate Int. 43-Feinberg, to amend the Correction Law so as to limit hours of guards and other uniformed employees in state prisons, state reformatories and hospitals for criminal insane to 48 hours for six days, at least one day a week to be a day of rest. Referred to Penal Institutions Committee.

Comment: A bill of this character was passed by both houses last year but was vetoed by the Governor. Without doubt other bills similar in character will be introduced this year with an attempt to have one of them enacted.

Senate Int. 50-Pitcher; Assembly Int.

41-Brownell, creating a temporary state commission to make a comprehensive study and analysis of unemployment and employment relief and laws relating thereto, and appropriating \$50,000. Referred to the Finance Committee.

Comment: Reporting this bill is also in-We know you will be interested in the attempts that will be made this year to incorporate the TERA and other charity activities into a more permanent There are suggestions that all program. of this work should be referred directly to the Department of Social Welfare.

Senate Int. 51-Pitcher; Assembly Int. 45-Gamble; to amend the Constitution by providing for a four-year term for Sena-tors and two-year term for Assemblymen, and for referring proposed constitutional amendments to the legislature whose assembly shall have been chosen at next general election of Assemblymen instead of Senators. Referred to the Judiciary Committee.

Comment: Purely informational. Senate Int. 54-Stagg; Assembly Int. 47-Messer; amends the Vehicle and Traffic Law by providing for a flat registration fee of \$3.00 for motor vehicles. Referred to the Motor Transportation Com-

Comment: Purely informational. Senate Int. 57—Wicks; Assembly Int. 61-Wadsworth, amends the State Charities Law, repeals Chapter 798 of the Laws of 1931, by abolishing the Temporary Emergency Relief Administration assigning its powers and duties to the Social Welfare Department. Referred to the Relief and Welfare Committee.

Senate Int. 62-Williamson, amends the Surrogate's Court Act by providing debts of a decedent shall be second in order of payment by an executor and administrator, due for hospital, physicians', surgeons', and nurses' services rendered to decedent during last illness. Referred to the Judiciary Committee.

Comment: This bill was before both houses last year but was killed in committee in each house. We approved the

bill and gave it our support.

Senate Int. 71-Williamson, adds new section to the Tax Law imposing an emergency filing fee or tax of \$4.00 on gross personal incomes of \$1,000 or more for year 1936, 50 per cent of moneys to be paid to state for unemployment relief and such proportion of remaining 50 per cent to each county treasurer as population within towns and cities of county bears to aggregate population within all towns and cities of the state. Referred to the Taxation Committee.

Comment: Purely informational. Senate Int. 104—Feld, adds new Article 17-b to the Public Health Law by providing no bread to be sold in loaf form, whole or sliced, shall be transported, handled or sold unless securely wrapped in wax, cellophane or other wrapping of equal texture and security, violation being made a misdemeanor. Referred to the Health Committee.

Senate Int. 134—Desmond, amends the Civil Practice Act by eliminating from section 354 provisions relative to testimony of physicians, surgeons, and nurses, and embodying them in a new section. Referred to the Codes Committee.

Comment: By this amendment Senator Desmond proposes to take certain matter from Section 354 of the Civil Practice Act, which relates to "evidence" given, and place it as 296-a in the section devoted to "depositions." He is removing nothing from the law and in no way at all changing the law with regard to confidential communications. It appears to be an effort to clarify the law by placing this clause in the section to which it properly belongs.

Senate Int. 135—Nunan; Assembly Int. 115—Fitzpatrick; Labor Law, providing no state hospital nurse or other employee shall be allowed to work more than eight hours a day and eight consecutive hours in any twenty-four shall constitute a legal day's Referred to the Labor Committee.

Assembly Int. 1—Whitney, appropriates \$2,000,000 to pay indemnities for bovine animals killed on account of infectious or communicable diseases, other than tuber-culosis, but including Bang's abortion disease and mastitis. Referred to the Ways and Means Committee.

Assembly Int. 39—Bartholomew, appropriates \$1,000,000 to pay indemnities for bovine animals killed on account of disease known as mastitis. Referred to Ways and Means Committee.

Assembly Int. No. 40-Bartholomew, appropriates \$1,000,000 for payment of indemnities for bovine animals killed on account of Bang's abortion disease. ferred to the Ways and Means Committee.

Assembly Int. 84—Dunn, creates a temporary commission of seven members to be appointed by Governor to make a comprehensive study and analysis of Bang's abortion disease and mastitis of cattle and appropriating \$25,000. Referred to the Ways and Means Committee.

Comment: Endeavors were made last year to have the state take the same interest in eradicating animals affected with Bang's disease as has been taken in freeing herds of tuberculosis. One of the probable reasons why those endeavors did not ma-

terialize was the lack of information as to the prevalence of this disease among ani-The importance of protecting man against the disease was thoroughly realized. The Governor, in his address to the Legislature, refers to the matter in the following paragraph: "I believe that before the state embarks upon a program of indemnity payment to farmers for cattle reacting to Bang's disease or mastitis, the Legislature should have before it much more data than is now available to any of us. Among the things that should be considered are: losses to the dairy industry; health factors; ultimate cost to the people of the state. you know, the campaign of tuberculin testing has, over a period of 17 years, cost the state more than \$50,000,000, apart from the losses incurred by the dairy farmer himself. Therefore, in order to explore these various important considerations, I recommend that your Honorable Bodies establish a commission of experts which will study the subject and submit its report to the Legislature.

Assembly Int. 83-Doyle, adds new section 4-a, Public Health Law, prohibiting experiments upon living dogs, violation being made a misdemeanor. Referred to the Health Committee.

Comment: The antivivisection bill has come in early this year and one interesting observation is that its sponsor is the chairman of last year's Public Health Committee.

The personnel of the Senate committees remains the same as last year with the exception that Senator Howard, of Kings County, will head the Committee on Labor and Industry, succeeding the late Senator Naturally, all the committees in the Assembly have a new personnel this year. They will all be found in the "white book" but that will not be published for some time. In the meanwhile it may be necessary for you to communicate with members of some of the committees:

Assembly Committee on Codes. James R. Robinson, Cch., Tompkins; Harry D. Suitor, Niagara; George B. Parsons, Onondaga; Albert Haskell, Jr., Cortland; J. Maxwell Knapp, Sullivan; Harold P. Herman, Nassau; Warren O. Daniels, St. Lawrence; Harold B. Ehrlich, Erie; Russell Wright, Jefferson; Fred A. Young, Lewis; John A. Byrnes, New York; Meyer Alterman, New York; Peter T. Farrell, Queens; Crawford W. Hawkins, Kings; Irving D. Neustein, New York.

Assembly Committee on Public Education. Harry L. Averill, Chr., Wayne; Rainey S. Taylor, Orange; Wheeler Milmoe, Madison; Emerson D. Fite, Dutchess; William E. Morris, Saratoga; Frank G. Miller, Tioga; Warren O. Daniels, St. Lawrence; Jane H. Todd, Westchester; Chauncey B. Hammond, Chemung; McKenzie B. Stewart, Clinton; Floyd E. Mecks, Schuyler; James L. Dixon, Queens; Patrick H. Sullivan, New York; F. J. McCaffrey, Jr., New York; George Kaminsky, Kings.

Assembly Committee on Public Health. E. O'den Bush, Chr., Delaware; James D. Burgdorf, Cayuga; Edward F. Vincent, Broome; Ernest J. Lonis, Oswego; Jane H. Todd, Westchester; Warren O. Daniels, St. Lawrence; Thomas A. Leahy, Essex; Frank A. Gugino, Erie; Edward P. Doyle, Kings; Edwin L. Kantowski, Erie; Aaron F. Goldstein, Kings; S. A. Farenga, New York; James V. Mangano, Kings; Charles Bormann, Richmond.

Assembly Committee on Labor and Industries, Wilson Messer, Chr., Steuben; Frederick A. Washburn, Columbia; Herbert A. Rapp, Genesee; Harold C. Osterag, Wyoming; Fred S. Hollowell, Yates; James E. Hill, Broome; Floyd E. Meeks, Schuyler; William R. Williams, Oneida; Fred A. Young, Lewis; Thomas A. Leahy, Essex; Anthony J. Canney, Erie; Leonard Farbstein, New York; Charles H. Breitbart, Kings; F. J. McCaffrey, Jr., New York; Ralph Schwartz, Kings.

Bulletin No. 2

January 15, 1936

Since the issuance of our last bulletin the following bills have been introduced:

Senate Int. 220—Schwartzwald; Assembly Int. 215—Bush; amends the Public Health Law relative to vital statistics by providing among other things that still-births without attendance of a physician or midwife shall be treated as "deaths" without medical attendance. Referred to the Health Committee.

Comment: Introduced at the request of the Department of Health.

Senate Int. 233; Assembly Int. 200—Budget Bill. Appropriates \$10,000,000 for Temporary Emergency Relief Administration, \$6,000,000 being allocated to reimbursement fund to be used by municipal corporations and \$4,000,000 to the discretionary fund for direct grants thereto, administrative expenses, and for certain State improvements. Referred to the Finance Committee.

Assembly Int. 93—McCaffrey, amends the Workmen's Compensation Law relative to physical examination of employees, by striking out provision that physician, as employee or carrier may select and pay for, may participate in examination if employee or carrierate in examination if employee or carrierate.

rier so requests. Referred to the Labor Committee.

Comment: Mr. McCaffrey has sponsored this bill for a number of years. Last year it passed both houses but was vetoed by the Governor. We have always supported it.

Assembly Int. 188—Haskell, amends the Agriculture and Markets Law by empowering Department to regulate pasteurization and bottling of milk and making it unlawful to pasteurize or bottle milk for consumption in state which the dealer has sold at price less than minimum price fixed for such sales. Referred to the Agriculture Com.

Assembly Int. 204—Otto, adds new section 21-a to the Public Health Law, to permit employment of a local health officer to serve more than one town or village, service outside usual duties to be paid at per diem rate. Referred to the Health Committee.

Rumors that there will be a chiropractic bill persist, and newspaper clippings indicate there there is great activity among the chiropractors all through the State. Reports that a bill has been prepared and will be submitted have been carried in newspapers in Buffalo, Rochester, Brooklyn, and several places along the Southern Tier. Our information is that the bill will require examination from all applicants. None is to be licensed without examination, regardless of how long he may have been practicing in the State or the recognition he may have received in other states.

May we suggest that you "take time by the forelock" and warn your legislators while they are at home over this week-end regarding the imminence of this matter. Osteopaths and chiropractors agree that chiropractic is not osteopathy, and no one has ever defined chiropractic in such way that a recognized school could make it a part of its curriculum. Many anatomists, physiologists, and pathologists have studied the methods of chiropractors but none has been able to find a scientific basis for their claims. If there were even the smallest grain of virtue in chiropractic, it would have long since been recognized by some scientific group.

In the larger counties the chairmen can not personally see all of the legislators, but there they should assign members of their committees to certain legislators so that all will be adequately covered. Develop now your contacts so that they may be well established when we need them later on.

HARRY ARANOW
B. B. BERKOWITZ
B. WALLACE HAMILTON
JAMES F. ROONEY
LEO F. SIMPSON

Public Health News

From the New York State Department of Health comes a "news letter" (No. 12, January 2, 1936) issued by the United States Public Health Service which is here reproduced in full with permission of Commissioner Parran. None of the cases described occurred in this State.

Poliomyelitis Following Vaccination Against this Disease

During the past year in the United States, several thousand individuals, mostly children, have received subcutaneous and intracutaneous injections of treated poliomyelitis virus in the hope of acquiring immunity against the natural disease. The two different forms of treatment to which the virus was subjected were intended to render it innocuous when thus used as a vaccine. those responsible for the production of these vaccines, through several health officers, and through others, word has come to the United States Public Health Service of the development, at suggestive intervals following these injections, of cases of paralytic poliomyelitis with high fatality. possibly subject to some correction, it is believed that the following statements represent closely the facts in each case.

1. A five-year old boy had his first symptoms of poliomyelitis six days after receiving the second dose of vaccine A in the left arm, the first dose having been given in the same arm twenty-seven days before the second. Paralysis began in the left arm the day after onset and death occurred after a three-day illness.

death occurred after a three-day illness.

2. A twenty-one month old girl received the second dose of vaccine A in the right arm twelve days after the first dose, and the onset of poliomyelitis occurred six days after the second dose. Paralysis began in the right arm three days later, and death occurred in five days

after onset.

3. A four-year old boy had his onset of poliomyelitis eight days after the first dose of vaccine A in his left buttock, and one day after the second dose at the same site. Paralysis began in his right leg two days later and is at present, after three months, confined to that extremity, though there is hope of ultimate nearly complete recovery.

4. An eight-year old girl had her onset of poliomyelitis eight days after the first dose of vaccine A in her left arm, and one day after the second dose in the same arm. Paralysis began in the arm two days later, and death

occurred after a three-day illness.

5. An eight-year old boy had his onset of poliomyelitis eight days after the first and only dose of vaccine A in his left arm. Paralysis began in the right arm two days later, and remained as a deltoid paralysis at last accounts.

6. A five-year old boy had his onset of poliomyelitis nine days after the first and two days after the record dose of practice.

6. A five-year old boy had his onset of poliomyelitis nine days after the first and two days after the second dose of vaccine A in his arm. Arm paralysis began two days later, and death occurred after a three-day illness.

- 7. A ten-year old boy had his onset of poliomyelitis ten days after the first dose of vaccine A in his left arm and three days after the second dose in the same arm. Paralysis began in the right arm the next day, and death occurred after a three-day illness.
- 8. A five-year old girl had her onset of poliomyelitis eleven days after the first dose of vaccine A in her right arm, and four days after the second dose in the left arm. Paralysis began in the left arm four days later and was still present at last accounts.
- 9. A fifteen-month old girl had her onset of poliomyelitis thirteen days after the first and only dose of vaccine B in the abdomen and developed general weakness four days later, which persisted at last report.
- 10. A five-month old boy had his onset of poliomyelitis fourteen days after the first and only dose of vaccine B in the abdomen and paralysis was first noticed nine days later. This paralysis persists at last report.
- 11. A six-year old girl had her onset of poliomyelitis fourteen days after the first, and seven days after the second, dose of vaccine A in her arm. Paralysis began in the left arm three days later, and complete recovery was questionable at last report.
- 12. A twenty-year old boy had his onset of poliomyelitis fourteen days after the first and only dose of vaccine B in his abdomen. Paralysis began two days later, and death occurred after a four-day illness. From this case poliomyelitis was transmitted to monkeys by Dr. J. F. Kessel.

Paralytic poliomyelitis was not epidemic in any of the localities at the time of the occurrence of these cases if these cases themselves are not included in the count. During the heaviest incidence of poliomyelitis in the community with the highest reported incidence, the expectation of paralytic poliomyelitis among those vaccinated within three weeks following vaccination, judging by its occurrence by age-groups in the community at large, was less than one-tenth of a case, yet a case occurred. At the other periods and in the other localities, the chance of a case occurring among the vaccinated was much less, yet in each instance cases occurred. The likelihood of the whole series of cases having occurred through natural causes is extremely small. In none of the cases was exposure to infection outside its own area known to be of special significance.

It is believed that to many physicians this series of cases, following by intervals of six to fourteen days the injection of one or the other of two different vaccines, renders undesirable the further use of polionivelitis virus for human vaccination at present

In every case where the injection was made in a limb and the sequence is known, the level of the spinal cord first affected corresponded to the extremity where the injection was made, paralysis beginning either in the same limb or in the contralateral This is strong support to other evidence that the virus of poliomyelitis is transmitted along nerve fibers, since neither blood nor lymph streams would afford direct access from one extremity to the correspond ing cord level. The remarkably high fatality in this series of cases was perhaps due to the part of the cord primarily infected being close to the nuclei corresponding to the muscles of respiration. The possibility is to be considered that a strain of poliomyelitis which has been subjected to prolonged monkey passage, with rather short incubation periods, is unusually virulent to man when administered by the subcutaneous or intracutaneous route. Though in a few of these cases it is possible or even probable that there was another intercurrent illness

in addition to poliomyelitis, in general the preparalytic symptoms were such as would be expected in poliomyelitis naturally acquired

In forming a judgment as to the applicability of a poliomyelitis vaccine, the not inconsiderable local and general reactions following its use need to be taken into account I It is also noteworthy that the appearance of neutralizing antibodies in the blood after the injection of poliomyelitis virus is very uncertain evidence of parallel immunity to the natural disease 2

Although any one of these cases may have been entirely unconnected with the vaccine, the implication of the series as a whole is clear

The above statement of cases is slightly amplified from that appearing in the Journal of the American Medical Association of December 28, 1935

¹ Gilliam, A. G., and Onstott, R. H. Results of Field Studies with Poliomyelitis Vaccine, read before the Southern Branch, American Public Health Association, St. Louis, November 19, 1935, Am Jour Pub Health, to be published 2 See also Schultz, E. W., and Gebhardt, L. P. On the Problem of Immunization against

Poliomyelitis, California and Western Medicine, 43 112, (\lag), 1935

Massachusetts Public Health Council Requires Differentiation in Reporting Paralytic and Non-Paralytic Poliomyelitis

By a recent vote of the Massachusetts Public Health Council it was determined that effective January 1, 1936, all cases of anterior poliomyelitis in that State shall be reported as "paralytic" or "non-paralytic (pre paralytic)" infections This action was taken in order to obtain so far as possible a true picture of the current prevalence of the disease as contrasted with former years when the non-paralytic cases were not reported to the same extent as they are at he present time

In the future all reports made by the Department of Public Health of Massachusetts will be in accordance with the classification above mentioned and supplemental reports will be filed as cases reported as pre-paralytic subsequently develop paralytic signs and the change in the classification is, therefore, necessary,

It is felt that this action of the Massachusetts Public Health Council is a progressive step in the right direction

GERMAN BIRTHRATE INCREASES

The impassioned campaign of Hitler for more babies in Germany has been rewarded by an increase of 224 per cent in the 1934 birthrate over 1933 The equally impassioned appeal of Mussolini was met by a fall of 08 per cent in the same period It should be added that, even so, the Italian birthrate is still much higher than the German

Physicians using their homes as offices are compelled in some cities to pay a higher rate for electricity than purely residential consumers, a rating that many doctors consider unfair The Medical Society of the County of Kings is organizing a protest of its members and hopes to secure a more reasonable charge.

Many children are suffering unnecessary eye trouble and injuries to the nervous system because of a general lack of adequate or properly controlled natural or artificial lighting in the schools, Dr. Hugh Grant Rowell, professor of health education at Teachers College, Columbia University, said a few days ago in a press interview.

Medical News

Bronx County

DR. MICHAEL J. LYNCH of the Bronx has been elected president of the medical board of St. Joseph's Hospital, of Yonkers.

Chautauqua County

Dr. W. L. Rathbun, superintendent of the Newton Memorial Hospital, Cassadaga, was elected president of the Chautauqua County Medical Society at its annual meeting on Dec. 18. He succeeds Dr. Thomas H. Shanahan. Dr. W. Gifford Hayward of Jamestown was elected first vice president, and Dr. Edgar Bieber and Dr. F. J. Pfisterer, both of Dunkirk, were re-elected secretary and treasurer, respectively.

Chemung County

DR. ARTHUR C. SMITH was elected president of the Chemung County Medical Society, succeeding Dr. La Rue Colegrove, at the ninety-ninth annual meeting on Dec. 18.

Dr. John F. Lynch was elected vice president, while Doctors William J. Cusick and George R. Murphy were re-elected treasurer and secretary, respectively.

Others elected were: Dr. Reeve B. Howland, state delegate; Dr. J. Lee Kinner. alternate delegate, and Dr. John H. Burke. Sr., censor.

Preparations were made for the centennial anniversary of the association next year.

Chenango County

Dr. W. L. Dodge of Afton was elected president at the 131st annual meeting of the Chenango County Medical Society. Dr. Wayland Mason was named vice president and Dr. John H. Stewart was re-elected secreary and treasurer.

Dr. E. W. Wilcox was elected delegate to the annual meeting of the state society and Dr. George L. Manley alternate. Dr. E. F. Gibson was elected censor for a three-year term.

Erie County

An illustration of the physician's tendency to risk his own health and even his life to care for his patients was seen in the death of Dr. John Leonard Eckel, of Buffalo, who rose from his sick hed to visit patients at a hospital on Nov. 26, and as he talked with one of them, while two nurses stood by, he straightened in his chair, sighed and died. Dr. Eckel was 55 years of age. He was on the staff of nine Buffalo hospitals as

attending and consulting neurologist and psychiatrist. He was president of the Buffalo Neuro-Psychiatric Society. He had been nominated for president of the Erie County Medical Society. He was associate professor of neurology and psychiatry at the University of Buffalo Medical School, and had been honored on countless occasions with invitations to read papers before scientific bodies in all parts of the world. His articles of research, numbering more than forty, have been published in European medical journals, principally in London, Berlin, and Vienna.

Greene County

THE GREENE COUNTY Medical Society entertained a visiting delegation of the Columbia County Society at a meeting in Catskill on Dec. 17 to listen to an address by Dr. David Moore, of New York City, on "Diabetes."

Kings County

Officers of the Kings County Medical Society were elected on Dec. 17 at a meeting of 200 members in the society's building. Dr. Henry Joachim, who takes office now as president, was elected a year ago. Dr. Thomas A. McGoldrick was chosen president for 1937. Others elected were Dr. John B. D'Albora, vice president; Dr. Joseph Raphael, secretary; Dr. Thomas B. Wood, associate secretary; Dr. Augustus Harris, treasurer; Dr. John A. McCabe, associate treasurer: Dr. Jacques C. Rushmore, directing librarian, and Dr. Edwin P. Maynard, associate librarian.

A FRANK EPITAPH, it seems, is already carved on the monument in the family burial plot where Dr. Edward T. Gibson, 81, formerly of Brooklyn, was laid to rest a few weeks ago. The plot is in an upstate city, and the inscription written by Dr. Gibson runs as follows:

"Well, we have got what was coming to us, and here in this burial plot we lie—us 14 skeletons of Gibsons, Tinkhams, Drakes, Pixleys and Curtisses, that once were clothed with flesh and lived and loved and laughed and danced and sang and suffered just like you till the God-created life-transmitting spark that had been passed down to us from the beginning died."

He served in the Philippine, Moro, Indian and Spanish-American Wars and was in the medical department of the Brooklyn Rapid Transit Company for 14 years.

Montgomery County

AT THE ANNUAL MEETING of the Montgomery County Medical Society in Amsterdam on Dec. 11, the following officers were elected: President, Dr. P. J. Fitzgibbons; secretary, Dr. W. R. Pierce; treasurer, Dr. S. L. Homrighouse; censors, Dr. W. H. Seward, Dr. R. C. Simpson, Dr. W. H. Rathbun, Canajoharie.

New York County

DR. CHARLES LOOMIS DANA, dean of American neurologists, professor of nervous diseases at the Cornell Medical College for over thirty years, died on Dec. 12 at Harmon-on-Hudson at the age of eightythree. He had practiced in New York City over fifty years and was the author of a "Textbook of Nervous Diseases and "Textbook of Nervous Diseases and Psychiatry" which is considered a standard work for consultation.

Dr. Dana was president of the Academy of Medicine, 1914-16, had served for years as chairman of its public health committee and was still a member of the board of trustees. He was also a former president of the American Neurological Association.

Rensselaer County

Dr. W. B. D. Van Auken was installed as president of the Medical Society of Rensselaer county at the society's 130th annual banquet held in the Hendrick Hudson

hotel, Troy, on Dec. 11.

Other officers installed included Dr. S. H. Curtis, vice president; Dr. Leo S. Weinstein, secretary; Dr. John F. Russel, treas-urer; Dr. J. D. Carroll and Dr. C. J. Handron, delegates to the state society; Dr. Katherine S. Cook and Dr. Elizabeth Palmer, alternates, and Dr. C. W. Hamm and Dr. William Trotter, censors.

Richmond County

Dr. Edward D. Wisely, who has been treasurer of the Richmond County Medical Society for a quarter of a century, retired at the annual meeting on Dec. 11. The members, in appreciation, presented him with a handsome Italian onyx desk set. Dr. Wisely made a very happy and graceful

speech recalling the society's early days. Officers for 1936 were elected. Dr. William C. Buntin, who had been vice president, was named president to succeed Dr. Driscoll, Dr. Frederick Schwerd was named vice president; Dr. Becker, treasurer; and Dr.

John J. Goller, secretary.
Dr. Pearson, Dr. Andrew J. McGowan
and Dr. Nathaniel Fedde were named to the board of censors; Dr. Herman Friedel,

member-at-large of the executive committee; Dr. Driscoll and Dr. Stanley Pettit, delegates to the state society; Dr. Anna Stein and Dr. Sara Bass, alternates; Dr. F. T. Donovan, delegate to the first district society; and Dr. C. J. DiCrocco, alternate.

Rockland County

Dr. J. WILLIAM GILES, seventy-four, Coroner of Rockland County, died at his home in South Nyack on Dec 17.

Dr. Giles had been president of the Rockland County Medical Society and was a director of the New York State Medical Society.

Suffolk County

THE OFFICERS of the Suffolk County Medical Society for 1936 are: President, Dr. David L. MacDonell, Sayville; First Vice President, Dr. Stanley P. Jones, Mattituck; Second Vice President, Dr. Earl M. McCoy, Central Islip; Secretary, Dr. Edwin P. Kolb, Holtsville; Treasurer, Dr. Grover A. Silliman, Sayville; Censors, Drs. B. P. MacLean, Huntington; William N. Barnhart, Central Islip; and Paul Nugent, East Hampton, Delegates to the State Society, Drs. Albert E. Payne, Riverhead, and Coburn A. Campbell, Port Jefferson. Delegate to Second District Branch, Dr. William H. Ross, Brentwood.

Tioga County

SIX FORMER PRESIDENTS of the Tioga County Medical Society gave interesting talks at a "Past Presidents' Night" on Dec. 10 at Owego. The following officers were elected for the coming year: President, Dr. Louis D. Hyde, of Owego; Vice-President, Dr. Corbet S. Johnson, Spencer; Sec .-Treas., Dr. Ivan C. Peterson, Owego; Censors, Dr. E. S. Beck, Owego; Dr. F. A. Carpenter, Waverly, and Dr. F. H. Spencer, Waverly; Delegate, Dr. G. S. Carpenter, Waverly; Alternate, Dr. A. C. Hartnagle, Berkshire.

Tompkins County

Dr. Henry B. Sutton was re-elected president of the Tompkins County Medical Society at the annual meeting at Ithaca on Dec. 17.

The business meeting was followed with a buffet luncheon and entertainment which consisted of the showing of several reels of motion pictures by Coach Nick Bawlf of

The other officers elected were Dr. H. L. VanPelt, vice president; Dr. B. F. Hauenstein, secretary, and Dr. Wilbur G. Fish, treasurer. Drs. David Robb, W. F. Lee, Hudson Wilson, Edgar Thorsland and E. F. Hall were elected censors.

Medicolegal

LORENZ J. BROSNAN, Esq.
Counsel, Medical Society of the State of New York

Malpractice—Treatment of Fractured Hip

A few months ago the Federal Circuit Court of Appeals for the Circuit which includes the far Western States reviewed upon appeal a malpractice case* involving the treatment of a fracture, and handed down an interesting decision exonerating the physician of the charges that had been made against him.

The case arose out of an injury which the plaintiff, a man fifty-nine years of age, received to his hip on May 28, 1931. He was taken in an automobile more than twenty miles over poor roads to the office of the defendant, Dr. M. for treatment. An x-ray picture of the injured hip was taken by Dr. M. and from that x-ray he diagnosed the condition to be an impacted complete fracture of the surgical neck of the right femur.

The doctor, according to his testimony, recommended hospitalization, and a special nurse, but the patient denied that such advice was given. At any rate the treatment was undertaken by the doctor without the patient entering a hospital or receiving the care of a nurse. Part of the care was administered in a hotel room near Dr. M.'s office. It was in such hotel room that after the diagnosis had been made the doctor placed the limb in splints and supported it by sandbags, as preliminary treatment to await the subsidence of the swelling which was present. After the swelling had gone down, apparently a few days after the injury, the physician applied a plaster cast to immobilize the leg in proper position. No other x-rays were taken before or immediately after the application of the cast. The reason given by Dr. M. for failing to obtain more such pictures, was that he claimed that he ascertained by measurement and examination by manipulation at the time of applying the cast, that the bones were still in the same position as in the x-ray he had already taken.

The account given of the fact situation thereafter indicates that the patient was taken home with the cast on his leg, and that in August 1931 the cast was trimmed away to some extent upon the order of Dr. M. He apparently attended the patient about eight weeks later and directed that the cast be removed by the wife of the patient. No x-rays were taken by the defendant after

the removal of the cast, and according to the patient's testimony, on January 28, 1932 after he had used crutches down to that date, he was told by Dr. M. to throw away his crutches and begin walking on his leg.

Subsequently in September 1933 the patient went to a Dr. H. who took an x-ray which showed that, at that time the femur had slipped past the head about two inches and that fibrous union connecting the head and the femur had occurred at such point of contact. Based upon the imperfect result that was concededly present in September 1933, the patient brought a malpractice suit for damages against Dr. M.

The case was tried in the United States District Court, and the trial resulted in a large judgment against the doctor, but that judgment was reversed by the Circuit Court of Appeals, which concluded after reviewing the case that the plaintiff had failed to show that he had been damaged by any malpractice. The said Court also ruled that the trial Court should have directed a verdict in favor of the defendant.

Upon the trial the first problem for determination was whether Dr. M. was negligent in the initial treatment of the patient. It was conceded that if the fracture was in fact impacted, the initial treatment was proper for a man fifty-nine years of age. However, the proof also was that if it were not impacted, and the broken ends of the bone were not in contact, the dislocation should have been reduced. The x-ray taken by the defendant was produced upon the trial, and defendant produced five expert witnesses who testified that the fracture was impacted. The only expert who differed on the interpretation of the x-ray was a Dr. R. who said he was unable to say whether or not it showed an impaction. Dr. R. was the physician upon whose testimony plaintiff primarily relied to make out his case. He was a young physician in his early thirties, who admitted that he had never had a case of fractured femur himself, and that he relied largely in his opinions as an expert, upon text books and his observations as an interne. He admitted having no special training in reading x-rays. However, he expressed the opinion that the fracture was unimpacted, giving as specific reasons his reading of the x-ray, the amount of pain

^{*} Moore v. Tremelling, 78 Fed. (2nd) 821.

suffered by the patient, and the fact that the plaintiff upon receiving the injury had been unable to bear weight upon the injured limb. He testified, against the contrary opinion of all the other experts, that if the fracture were impacted, the patient should have been able to stand.

Dr. R. however also testified that the end result which the plaintiff sustained would have been caused by walking too soon upon the leg. Dr. H. who took the 1933 x-ray, testified as a witness for the plaintiff, that the result may have been caused either from a failure to reduce the fracture or from a subsequent slipping after a proper reduction. The Appellate Court in ruling that negligence had not been established in connection with the initial treatment said in part:

We thus have plaintiff's witnesses assigning either or both of two causes for the defective union of the bone. If it could be said that the failure to reduce the fracture and the advice to the patient to use the leg prematurely were both negligent, it might not be necessary for the plaintiff to distinguish between the damages resulting from the two separate acts of negligence, but where one act is negligent and the other is not, the burden is upon the plaintiff to prove the damages which flow from the wrongful act.

In view of the opinion of the large number of professional witnesses to the effect that this was unquestionably an impacted fracture and was so shown by the x-ray pictures taken at the time, and in view of the fact that the opposing testi-mony of Dr. R. merely goes to the expression of his opinion that the fracture was unimpacted and does not purport to show that there was negligence in diagnosing the fracture as an impacted one even if we assume, as the jury may have believed and found, that the fracture was not reduced, it would still be true that we have nothing more in the case than an error of judgment and no proof that the appellant did not exercise such professional care and skill as were reasonably to be expected in that locality. There is no testimon that the locality. is no testimony that physicians in that locality were in the habit of taking more than one x-ray picture in the case of such a fracture or of making any examination other than that such as was made by the appellant. All the expert evidence is to the contrary. The plaintiff so far has failed to the contrary. has failed to show such an error of judgment in diagnosis as would justify a recovery. The treatment accorded the patient before the limb was placed in a plaster cast was in accordance with the diagnosis and conceded to be the correct treatment for an impacted fracture. If, for convenience, we divide the appellant's services into two stages, the initial treatment and the after treatment, and hold the former free from negligence and assume the latter negligent, then the evidence furnishes no basis for determining what result, if any, flowed from the latter and what from the former cause. The burden of proof is upon the plaintiff not only to show negligence but also the damage resulting therefrom.

The Court in reviewing the case so far as the charges of negligent advice as to weight-bearing was concerned, ruled that a proper case had not been made out on that point saying in part:

Plaintiff asked the witness to further define the treatment which he considered improper. In response he testified concerning after treatment that no more x-ray pictures were taken, that the cast should have been removed by a licensed physician, that the physician should not have discontinued his treatment of the patient so long as the patient was having severe pain, and added, "I think it was improper to tell him to walk without a picture being taken, there being no way of telling exactly the position of the bones without a picture to show the position."
Dr. R. thus specifies that the improper treatment so far as the premature use of the limb is concerned was in allowing the limb to be used at all without an x-ray picture. He does not testify and there is no evidence to the effect, that the use of the limb was premature, if in fact it was. There is a failure to show that the result complained of was proximately caused by the failure to take an x-ray picture, which was the only act of negligence claimed in this respect. As we have said it is necessary, not only to establish neglect on the part of a physician, but also to show that the injuries complained of resulted from that neglect. It is not shown that the use of the limb was premature, and consequently no recovery can be had for the advice to use the limb in January 1932.

Finally the Court ruled that even assuming negligence in both the initial treatment and the after-care, the plaintiff still had failed to prove he had sustained any damage as a result, saying in the opinion:

Moreover, even if we assume that both the initial treatment and the subsequent care of the plaintiff were negligent, there is a fatal defect in the proof because it is not shown that proper treatment would have produced a better result. Such evidence is essential in a malpractice case where two causes are cooperating to produce the final result—one, the fracture of the bone, with the attendant injuries, and the other the im-proper treatment. The burden is upon the plaintiff in a malpractice case to prove that the injuries he complains of resulted from the latter cause and not the former. The jury cannot be permitted to speculate upon the relative amount of injury due to the fracture and that due to the malpractice. There must be some evidence to distinguish the injury due to the fracture and that due to the appellant's negligence. It cannot be assumed that, in the absence of malpractice the result would have been better, it must be shown by the evidence of expert witnesses. The expert testimony showed that a fractured hip in the case of a person of plaintiff's age, is very serious, resulting in death in about fifteen per cent of the cases, and that in cases of all ages suffering from such a fracture, only about fifteen per cent fully recover; that in the balance of seventy per cent there was functional impairment of greater or lesser degree. There is no evidence to justify the conclusion that the plaintiff belonged in the fifteen per cent of cases which make a complete recovery. His age, the proximity of the fracture to the head of the femur, the fact that the senovial fluid contacting the fracture tends to prevent union, and the fact that he was suffering from a nervous disorder at the time of the accident all tend to exclude

him from the percentage that make a complete recovery. In any event it is clear that the preponderance of probability was against a perfect result in the plaintiff's case and that considerable impairment was reasonably certain to result from the injury with the best of care and medical attention.

Across the Desk

Is National State Medicine Unconstitutional?

If More or Less consternation struck the authors of the A.A.A. in Washington as they read the Supreme Court's decision relegating it to the junk-pile, we may wonder what the feelings were over in the Department of Labor, where the Secretary must have seen in the decision several points that apparently apply equally as well against her pet scheme of state medicine. In fact, as plan after plan of the Washington socializers is shattered on the granite negation of the Supreme Court, any further projects emanating from their bright young minds begin to look more and more doubtful and invalid.

The Court went so far, indeed, as to suggest a number of similar designs that might be enacted into law under our new political gospel, and branded them all as "prohibited ends" under the Constitution. "Until recently," the Court remarked rather meaningly, "no suggestion of the existence of any such power in the Federal Government has been advanced," but now it is argued that Congress has the power "to tear down the barriers, to invade the States' jurisdiction, and to become a parliament of the whole people, subject to no restrictions save such as are self imposed. The argument, when seen in its true character and in the light of its inevitable results," declares the Court, "must be rejected."

It is hardly necessary to say that the project for state medicine is part and parcel of the new gospel, and the words quoted above sound almost like a notice served on the "brain trust" not to waste the Court's time with any further socialistic contrivances and stratagems that violate our fundamental law and run counter to our system of government.

The Doctor's Freedom to Join or Starve

LET US RYN OUR EYE over the A.A.A. decision, and try to see as well as we can what the Court would say if it were passing on an act to regulate the doctors, instead of on one to regulate the farmers. "Put yourself in his place," is an old maxim, so suppose

that we put the doctor in the farmer's place in this decision, and see what happens. Well, the Court reminds us that "the United States is a Government of delegated powers," so "it follows that those not expressly granted, or reasonably to be implied from such as are conferred, are reserved to the States or to the people. . . . Powers not granted are prohibited. None to regulate agricultural production [or the practice of medicine] is given, and therefore legislation by Congress for that purpose is forbidden."

Nothing could be much clearer or more

apropos than that.

The A.A.A. was ostensibly a taxing act. It laid a tax on processers and paid the proceeds to those farmers who complied with its regulations. The Court ruled that this was not a true tax "for the general welfare," as stipulated in the Constitution, and quoted in support a previous ruling that "the power to tax could not justify the regulation of the practice of a profession, under the pretext of raising revenue." Yet that is precisely what a scheme for state medicine would attempt. It would levy assessments on employers and employees to provide a fund for medical care of employees in need of it.

But every doctor would be free to join or not, as he liked, some say, so that the profession would not be "regulated" or "regimented," as charged. No? The Supreme Court, as it happens, took up that very point. The farmer could comply or not, as he pleased, with the A.A.A., but "the price of such refusal is loss of benefits. The amount offered is intended to be sufficient to exert pressure on him to agree to the proposed legislation." In the case of a doctor in an industrial district, he could join in the state medical scheme or see all his patients sent to other doctors who did join. He would have entire freedom to join or starve. As the Court very truly remarks: "The power to confer or withhold unlimited benefits is the power to coerce or destroy. . . . The result may well be financial ruin. . . . This is coercion by economic pressure. The asserted power of choice is illusory."

So we see how that argument would fare if the state medical plan reached the High

Do Not Stack the Guns Too Soon

If we are still thinking of our friend the Secretary of Labor, we shall remember that she is sud to be one of the projectors of the great national medical survey now in progress. It is also said that if the survey reveals a large amount of sickness lacking medical care, as is fully expected, that fact will be used to argue the need of state medicine to provide it. That is, we may say, local conditions or needs throughout the nation will create a situation of national concern, or an emergency, requiring Federal action.

Did the Supreme Court happen to say anything in its verdict on the AAA to cover this point? It did It remarked "It does not help to diclare that local conditions throughout the nation have created a situation of national concern, for this is but to say that whenever there is a wide-spread similarity of local conditions Congress may ignore constitutional limitations upon its own powers and usurp those reserved to the States"

Altogether, and by and large, and taking one thing with another, it cannot be said that the AAA decision brings any special hope or joy to the medical socializers' camp In fact, it seems to bring them a rather large cargo of just the opposite But it will not do to stack our guns too soon Thus far the New Deal legislation has apparently been concocted with little regard for the Constitution, and more may follow the same path If an act is passed setting up a structure of state medicine, many a doctor's practice can be badly upset before the act reaches the supreme tribunal. The best plan is to keep it from ever going on the statute books-stop it before it starts

The "Low-Down" on "Red Medicine"

THE PLAUDITS SHOWERED on the Soviet medical system by the authors of "Red Medicine" and others are coming to look more and more ridiculous as the real facts are known The American doctors who attended the International Physiologic Congress last summer in the land of Lenin are now telling what they found over there, and the idea that America ought to pattern its medical system on Russia's is really comic One of the visiting physicians was Dr Arnold L Lieberman, of Gary, Ind, who describes the Russian medical situation in the AMA Journal

The first step of the Soviet revolutionaries in founding their ideal state was to abolish the upper and middle classes, and as these included the doctors, they were "liquidated," 1e executed or driven out of the country That was "red medicine" beyond a doubt As Dr Lieberman remarks, 'little of the medical personnel was left" Quite naturally the next thing was that wave after wave of cholera typhus, malaria, and similar scourges swept the country so fatally that the wise men of Moscow decided it might be a good idea after all to have some doctors A happy thought So the authorities proceeded to organize 'rapid courses" of training, paying the student's way, but requiring him to go to any post designated for the next five years

True this is providing the country as a whole with doctors of a certain sort for the first time in its history, but the doctors are described as no better than superior nurses here. They are coping as best they can with the various plagues, and the health and mortality figures are naturally much better than they were fifteen years ago, when there were virtually no doctors at all. This should be kept in mind when glorifiers of the soviet system begin to quote statistics.

Here is the best that Dr. Lieberman can say for the rural doctor in the village or country "The young medical graduate is better than nothing at all and he certainly is a focus of some sanitary instruction. One can see that in his crude little room or two he is doing excellent pioneer work in small-pox and typhoid control, child care, elementary sanitation, civilizing habits of cleanliness and so on. While, on the average, he is doing no surgery and committing countless errors of diagnosis and treatment still he is a beneficent village influence that was absent twenty years ago."

In the cities the situation is much better, but the doctors are not described as being any abler, except for the very few survivors of pre-war days, who now "unquestionably command an outstanding niche in soviet society"

Other American physicians who visited Russia tell us that more than half of the medical students are women, as the young men with a scientific bent find the rewards in engineering and mechanical fields far superior to those in medicine

To put it in a nutshell, the Soviet government, in a desperate effort to combat devastating plagues, has turned out thousands of half-educated "doctors" and scattered them across the land, here, there, and

everywhere, to do the best they can. In the cities a system is arranged by which any one who likes can summon one of the "doctors" at any time.

That is what we are asked to copy as something far above what we have here! The next speaker who can keep his face straight while he advocates it ought to have a large medal.

Big News that is No News

A LITTLE IMAGINATION can easily picture the people of this country exposed to enemies on all sides, within and without, ready to spring, and kept at bay only by the most untiring and unremitting vigilance. The report just issued by the Surgeon General of the U. S. Public Health Service recalls a sinister fact that most of us never even think of—that cholera is continually raging in Asia and the near-by islands, and might easily attack our shores but for the eternal watchfulness of our health officers. In 1934 there were nearly 300,000 cases just across the blue Pacific, with nearly 150,000 deaths. Bubonic plague, too, is present in nearly all parts of the world, and 100,000 cases of typhus fever were reported in various lands, many of them in our own hemis-"Yellow Jack," a terrible scourge in this country within the memory of people now living, still claims its victims in South America and Africa.

Our own home-grown communicable diseases are too well-known to require comment, but all may not realize that in a mere 35 years we have cut the death rate of typhoid fever from 35.9 per 100,000 to 3.3, and the death-rate of diphtheria from 43.3 to the same low figure. In other words, there are 91,000 fewer deaths per year now from these two causes than if the 1900 rates prevailed! More lives are saved every year in this war than were lost by battle wounds in our clash of 1917-18, and the doctors would well deserve, like the veterans, a bonus of billions for their services in this great victory, instead of being threatened with a draft into some ill-paid state medical scheme.

The American people have come to take all these brilliant medical achievements as a matter of course, and the saving of enough lives to repeople Utica or Schenectady every year arouses no excitement whatever. A splendid opportunity is open to any writer who can bring vividly before the nation the marvelous rescue-work going on day and night, snatching people from the

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Years later a gold crown which he was cementing on a patient's tooth slipped from Dr. Clark's fingers and went down the patient's throat. In a flash the story of Plimsoll same to the dentist's mind, he reversed his patient on the dental chair so that he lay on his stomach with his head on a pillow on the foot rest, and his feet tied to the head rest with two towels. When the patient coughed, the dentist tipped the chair. Once, twice, thrice, and on the third try, the crown gave a welcome tinkle as it hit the foot rest.

Two years passed, and Dr. Clark was visiting a medical friend in Virginia when three horsemen rode up to the doctor's door. "One of them was coughing violently and was in great distress. He had inhaled a ten cent piece and it had gone into his bronchus. He had been to two or three doctors but had gotten no relief. Doctor W. was at his wits end as he did not know what to do, I suggested the Plimsoll method. We took the door off the woodshed, also the strap hinges, and fastened the door to the kitchen table with the strap hinges. I had the young man lie down on the door on his stomach, tying his feet to the upper end of the door. When a fit of coughing came on, we tipped him up, and it took several 'tip-ups' before it came up, which it did, much to his relief.

"The ten cent piece had been in the bronchus so long it was covered with a secretion which prevented it slipping away easily."

February 1, 1936]

It might be a good plan to loosen the screws in the hinges of the office door, to be ready for emergency, as this is no time to let any coins get away without making every possible effort to retrieve them.

Making the Doctor the Goat

THE BEST THING THAT has been said yet about the much-mooted "mercy killings" came the other day from the keen Yale professor of physiology, Dr. Howard W. Haggard, in a lecture at Rochester. The proposal that the doctors end human life in certain cases is to make the physician a public executioner, he declared. "In criminal courts," he said, "judges are not asked

to knock a murderer over the head," and "the public cannot ask the medical profession to kill patients believed incurable. The executioner's post is on a low level, and to ask physicians to assume it is to insult the profession."

It might be added that while it may take a physician to save life, it does not need a physician to end it, and if the family or the patient is so anxious for death, they are perfectly able to bring it about and should take the responsibility. The game of trying to find a scapegoat is as old as the human race, and this looks a lot like making the doctor the goat. The responsibility should be gently but firmly put back where it belongs.

Books

Nutrition Work with Children. By Lydia J. Roberts. Second edition. Octavo of 639 pages, illustrated. Chicago. University of Chicago Press, 1935. Cloth, \$4.00.

In reviewing this book one must consider its object. One sentence in the Foreword reads: "This book is published primarily, then, to be used as a text and reference book in our own University classes or for similar ones, etc."

As such it is a book for teachers and presents the problem and the broader aspects of malnutrition rather than the detail.

The bibliography is enormous, even when duplication is considered, as it is recorded by chapters.

As a second of the problem, great value to great, in the main, it is written for other students.

W. D. LUDLUM

Anaesthesia and Analgesia in Labour. By Katharine G. Lloyd-Williams, M.D. Duodecimo of 96 pages, illustrated. Baltimore, William Wood & Company, 1934. Cloth, \$2,00.

This small pocket size book of one hundred pages gives a very comprehensive review of analgesia and anesthesia in labor.

The author first discusses the drugs used for analyssia during the first stage of labor, and she briefly gives the indications and contra indications for the use of the various drugs and their effect upon the patient.

For second stage analgesia and anesthesia, she discusses the various forms of inhalation, intravenous, and intra spinal anesthetics which are in common use.

The author does not forget that anesthesia

during labor may cause a "sleepy" baby, and she discusses briefly the various methods of resuscitation for the new born infant.

A final chapter is devoted to the choice of anesthetics for use in labor complicated by toxacmias, cardiac disease, tuberculosis and diabetes.

The volume is small, very readable, and gives an excellent summary of the subject.

W. S. SMITH

The Care of the Aged, the Dying, and the Dead. By Alfred Worcester, M.D. Duodecimo of 77 pages. Springfield, Ill., Charles C. Thomas, 1935. Paper, \$1.00.

These lectures formerly appeared in a book now out of print, "Physician and Patient," L. Eugene Emerson, Editor, and are now republished in answer to requests for reprints, the supply of which was exhausted.

In the treatment of the aged, the author shows that tact, understanding and kindness are often of more value than very scientific treatment and cites examples to prove this,

To the author, the natural return of the body to the dust is more to be desired than its preservation for years in a metallic casket buried in cement.

Attention is called to the growth of ridiculous extravagance in expenditure for overpriced and elaborate coffins and funerals from the desire to pay respect to the dead and to the desirability for the promotion of more reasonable burial customs.

The author is a writer of culture and a treats of subjects not often discussed.

W. E. McCollom

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Surgical Pathology of the Peritoneum. By Arthur E. Hertzler, M.D. Octavo of 304 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1935. Cloth, \$5.00.

This is the sixth of Dr. Hertzler's monographs on Surgical Pathology, in book form, 301 pages and 201 illustrations. to the chapters on anatomy, the healing physiology, of peritoneal wounds, peritoneal adhesions, and the seven devoted to a detailed consideration of the various types of peritonitis, are the last three chapters on mesenteric thrombosis and diseases of the blood vessels, diseases the omentum and tumors of the peritoneum, mesentery, omentum and retroperitoneal space.

This detailed discussion of the diseases of the peritoneum is, as the author states, the results of 40 years of constant companionship with this form of pathology. The consideration of the formation and the significance of adhesions seems to have been a special study by the author. His observation that "to mistake an unusual peritoneal fold for an adhesion is both to execute needless procedures and to invite failure to find the real lesion" is of considerable clinical value.

It is evident that the author of this monograph is strongly opinionated on the interpretation of his findings, but the critical thoroughness and the scientific care with which he conducted his studies would seem to justify his opinions. The monograph is, withal, a very readable book,—and quite profitable reading, too.

J. RAPHAEL

The Treatment of Common Female Ailments. By Frederick J. McCann, M.D. Third edition. Octavo of 379 pages. Baltimore, William Wood & Company, 1934. Cloth, \$4.75.

The purpose of this book is for a guide to the treatment of woman's ailments frequently met with in a general medical

practice.

In this third edition the text has been revised in order to make it more serviceable to the general practitioner, and several new chapters have been added. The text is for the most part, a record of the observation and experience of the author, and he has succeeded in writing a very excellent volume which should be very helpful to the general practitioner.

The chapter on Fertility and Sterility is of particular note. The author presents the subject in a clear and concise manner, and latest theories and practice are carefully

explained.

A study of this volume will show how much can be achieved in relation to the prevention of female diseases, and that this early recognition and prompt treatment is the chief means to that end.

W. S. SMITH

The Medical Clinics of North America. Vol. 18, No. 3. November, 1934. (New York Number) Octavo. Published every other month by the W. B. Saunders Co., Philadelphia. Per Clinic year (6 issues). Cloth, \$16.00; Paper, \$10.00.

This publication is fortunate in possessing articles that are not only conclusive in their interpretations but also brief in their discussion. Of particular mention is the symposium on lymphadenopathy which is discussed admirably from a clinical and therapeutic aspect. One is also impressed with the subjects dealing with "heart failure" and with a very instructive article dealing with the relationship of the thyroid gland to Graves' Disease.

The publishers announce that these Clinics will in the future, feature the every-day problems of the general practitioner. In the Clinics, presented diagnosis and treatment will be emphasized. In this change of presentation, the clinical side will be stressed. Any improvement in this well established publication will be welcomed by

the profession.

RUDOLPH CHESS

IVolume 36

Diagnosis and Treatment of Skin Diseases Including the Care of the Normal Skin. By Jacob H. Swartz, M.D. & Margaret G. Reilly, R.N. Octavo of 316 pages, illustrated. New York, The Macmillan Company, 1935. Cloth, \$3.50.

Here is a book that is distinctly different in that it has been written by a dermatologist, and a nurse who has been especially trained in the care of dermatological

patients.

To the student it is of great value because of the arrangement of the text. The preliminary chapter dealing with the anatomy, physiology, and elementary lesions of the skin, is concise. Later chapters contain the dermatoses according to the area predominantly involved, and these diseases are sufficiently described for general purposes.

The practitioner will derive great benefit from carefully reading the chapter on Care of the Normal Skin which explodes many of Aunt Mollie's pet theories, and tells him what he can properly advise his patients in regard to soaps, cosmetics, hair dressing, etc. Under the treatment of the diseases the actual nursing care is described in many instances so that the physician may correctly, and minutely, outline the care to his patient, or her attendant.

The entire book, which contains also chapters on the examthemata, and on syphilis, is commendably written, and well illustrated with 66 plates, as well as figures illustrating scalp, foot, arm and hand dressing, and face masks.

The book may, also, be profitably used by nurses in their course of study.

E. Almore Gauvain

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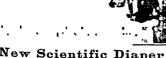
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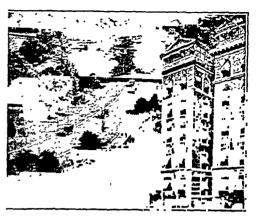
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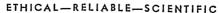
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Carriage and Culture

A man and his wife with greying hair sat is the lobby of a large hotel watching the young people arrive for an evening party.

"Some very fine gowns there," said the man.

"Yes, but the girls don't know how to carry them," replied his wife. "Not one girl in ten here tonight knows how to walk. That was one of the things we had to learn when I was at boarding school. You can always tell a cultured, well-bred girl by the way she carries herself. Nine-tenths of these girls walk in a slouchy, sloppy way that marks them at once as below par socially."

A graceful step, combining elegance and harmony with ease of action and attitude, creates a favorable impression instantly, and it can be learned by any young woman with proper instruction. It is one of the things

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An uncrowded profession offering steady, dignified, highly remunerative employment. Complete course including clinical laboratory technique and basal metabolism in six months. Small classes with personal supervision. A splendid course for post graduate work. Student dormitory maintained. For information write for catalogue. for catalogue.

Eastern Academy of Laboratory Technique, 1709 Genesee St., Utica, N. Y.

invariably taught in the best girls' schools and, combined with many other elements, produces the girl who is "well turned out" and is able to take her place in any sphere of society.

In the same way the military or semimilitary training in many boys' schools produces a young man with square shoulders, chin up, spine erect, and a step that is strong, springy and firm, and makes everyone who sees him say, "What a fine young fellow." In the keen social and business competition today these matters count. A careless, awkward, ungainly gait makes an unfortunate first impression that may be decisive.

Then, too, who can deny that fine habits of walking and carriage have their effects on habits of the mind? The man who steps with firm, strong tread will naturally develop a strong, decisive way of thinking and acting. The girl who moves with grace and harmony will acquire the social ease of a cultured woman.

Education means more than books. It takes in the whole life and training of the growing boy or girl, and our best schools neglect no part of it.

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It is interesting to note that a fair average of the length of time an infint receives Dextri-Maltose is five months. That these five months are the most critical of the baby's life. That the difference in cost to the mother between Dextri-Maltose and the very cheapest carbohydrate, at most is only \$6 for this entire period-a few cents a day That in the end, it costs the mother less to employ regular medical attendance for the baby than to attempt to do her own feeding, which in numerous cases leads to a seriously sick baby eventually requiring the most costly medical attendance - Adv

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WEST HILL W. 252 St. & Fieldston Rd. Located within the city linits, it has all the advantages of a country amitarium for those who are nerrous or mentally ill. In addition to the main building there are several attractive contages located on a ten acre plot Occupational Therapy and all modern treatment scalings. Telephone Hmpbridge 5 240

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122 Advertisers have taken space in this issue of your Journal. Give them your business when possible.

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Sisters of Charlty, but non sectarian in re ception of patients. Write for booklet H.
THE SISTER SUPERIOR St Vincent's Retreat

Louden-Knickerbocker Hall

SPECIALIZING IN NERVOUS-MENTAL DISORDERS NARCOTIC ADDICTION, ALCOHOLISM

Ideally located in a quiet maidential section on the South Shore of Long Island, 3M, milled must be stored on the South Shore of Frequent musical calertainment talking pictures ratio programs, and dances provide diversion for patients Completely staffed and equipped for all requisite medical and nursing care, including Hydro and Occupational Therapy

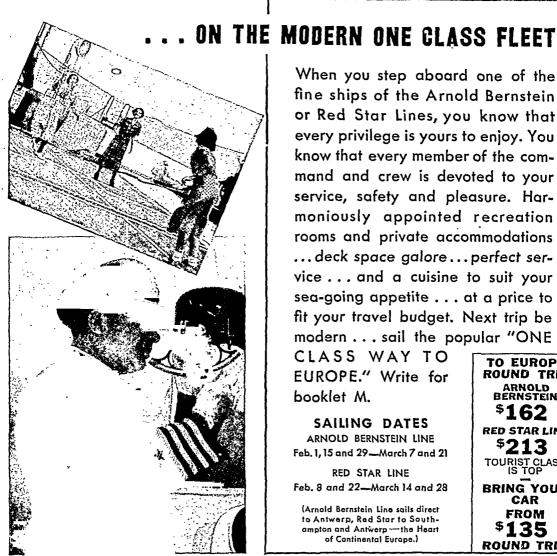
AMITYVILLE, L.I., N.Y. EST. 1880 PHONE AMITYVILLE 53 JOHN F. LOUDEN Proprietor JAMES F. VAVASOUR M.D.

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Mention the N Y STATE J M. to facilitate replies to inquiries

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When you step aboard one of the fine ships of the Arnold Bernstein or Red Star Lines, you know that every privilege is yours to enjoy. You know that every member of the command and crew is devoted to your service, safety and pleasure. Harmoniously appointed recreation rooms and private accommodations ...deck space galore...perfect service ... and a cuisine to suit your sea-going appetite . . . at a price to fit your travel budget. Next trip be modern . . . sail the popular "ONE

CLASS WAY TO EUROPE." Write for booklet M.

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BRING YOUR FROM **\$135**

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SEE YOUR LOCAL STEAMSHIP AGENT OR

THE MODERN ONE-CLASS FLEET

17 BATTERY PLACE, NEW YORK CITY

Travel and Hotels



See What You've Heard About Bermuda

On February 4th, the Bermuda Festival of Sports and Fashions will open at one of the most famous spots in the country-the British Empire building at Rockefeller Center in New York City, and will continue for one month.

prospective to interest both Bermuda-bound travelers and those lucky individuals who have already vacationed on this glorious coral island, the Bermuda Festival will feature well known activities along with interesting Bermudian sidelights the most sightseeing-minded visitor is apt to miss.

For ladies who plan to give up dusting and menu planning for beach lolling (and that on the grandest pink beaches we know of) there'll be fashion shows to illustrate the current vogue

in lolling costumes.

For tired professional and business men who long to get away from it all, there'll be irresistible pictures of rolling Bermuda fairways and phenomenal Bermuda water quarry.

For everybody-from seven to seventythere'll be lectures on and pictures of idyllic bicycle tours, where to stop for a snack, to play tennis and golf, to ride horseback-in a wordwhere to indulge your particular hobby.

Perhaps you are a camera addict. If so, you'll be intrigued by a display of camera studies, made in Bermuda, not only for their own merit but also for the fact that they'll give you a general idea of the wealth of scenic subjects you can experiment with on your own trusty kodak.

Perhaps you are a placid soul whose only wish is to take your ease behind a team of spanking bays and drive leisurely from Devil's Hole to Wreck Hill, and so about the island.

If you are planning a trip within the next few months, there'll be travel agents on hand with whom you can discuss rates and sailings. If you are a seeker of facts-there will be books on Bermuda architecture, gardens, climate, history and customs. There's everything to learn about Bermuda-from Walter Beebe's famous undersea exploration to the pros and cons of a rum swizzle-and here is the best place to get this information.

Infant in arms or captain of industry, you'll enjoy this elaborate Bermuda revue.

Boats Just Don't Like Him

The "Fates" probably have to indulge in an

occasional prank, but why they insist in playing their jokes on a man who has earned the right to a tranquil vacation is beyond the ken of Mr. Walter W. Lee, advertising manager of the Knott Hotels.

A year of energetic work and a part in the tremendous success of the Knott Hotels earned him the management's reward of a winter vacation.

Being a man of tempered and conservative ideas. Mr. Lee chose to spend the vacation in such a manner and to refrain from the usual formalities attached to vacationing. Selecting a cruise scheduled by the Standard Fruit Line for mid-January, he arranged for passage on the S. S. Gatun. Two weeks before the sailing date, he was notified that this steamer had been withdrawn from service.

Still light-hearted, Mr. Lee decided to book passage on the S. S. Atlantida, another Standard Fruit boat. And again, two weeks prior to sailing, he was notified that the Atlantida was being withdrawn from service. But with all the optimism of a Hollywood aspirant and the persistency of a feminine opinion, Mr. Lee turned to the Savannah Line and a sail to the sunny climes of his own country. Woe upon woe-for a third time he was regretfully informed that the steamer was being withdrawn from service.

Now Mr. Lee is wondering if there is conspiracy afoot against his trodding the decks of a steamer and if travelling incognito would clear up his difficulties in getting under way.

A "Suburb" of the Democratic Convention

Atlantic City will practically become a suburb of Philadelphia, during the Democratic Convention.

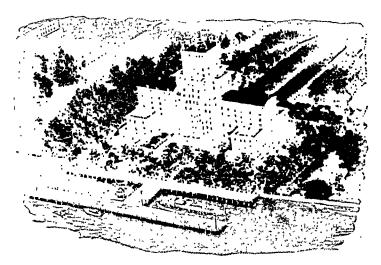
One of the major inducements put forth by the city of Philadelphia in its successful efforts to secure the national Democratic convention was its nearness to Atlantic City, and with the full cooperation of the seashore resort and the City of Brotherly Love, the Democratic convention will afford delegates opportunities for both work and play such as no other meeting place has been able to offer.

For many of the delegates, the convention will take on a holiday air since they plan to bring their families to Atlantic City during the convention and will themselves take advantage of the excellent transportation service, that

(Continued on page xxxiii)

FOR YOUR WINTER VACATION-

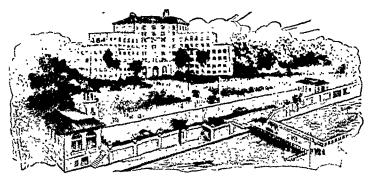
In Miami Beach it's THE FLEETWOOD

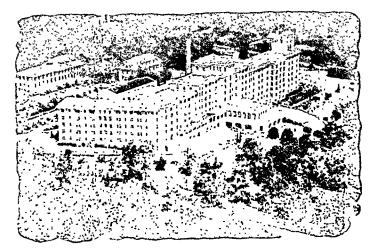


All outside rooms, well ventilated and with ocean or bay outlook. Ocean bathing, a choice of fine golf courses, deep-sea fishing, boating, horse and dog racing, polo, tennis, etc., are available. A private bus to ocean beaches at no charge, hotel-operated motor boats. Private dock and splendid parking facilities. Popular priced Coffee Shop with a la carte and fixed-priced meals. The "Hangar," a delightful roof garden.

In Savannah (Ga.) it's THE OGLETHORPE

A fine, year 'round hotel, catering to a select clientele. A fine 18-Hole Golf Course, Tennis Courts, Saddle Horses, fresh water Pool, Fishing, Hunting, Boating, Skeet Shooting, etc. The finest of Food, clean, comfortable, well - furnished rooms, excellent service and every facility for the convenience and comfort of the guests. 100-car fireproof garage. Commercial Rates.





In AUGUSTA (Ga.) it's

BON AIR

America's Most Exclusive
Winter Resort Hotel

Operated both American and European plan. Two fine golf courses, splendid stables and every sport facility. Augusta is the "winter golf capital of America," with winter temperatures warmer than Nice or Naples.

Other DeWitt Operated Hotels

- . In CLEVELAND it's THE HOLLENDEN
- In COLUMBUS it's THE NEIL HOUSE
- In AKRON it's THE MAYFLOWER
 In TOLEDO it's THE NEW SECOR
- . In DAYTON it's THE BILTMORE

(Continued from tage xxxi)

will be in effect at that time, to combine convention business in Philadelphia with rest and recreation in Atlantic City where beach and boardwalk are famous.

Austrian Travel

In a change of name and address, the Austrian State Tourist Department (formerly the Austrian National Tourist Office) calls attention to the festivals this coming summer.

The one at Vienna is from June 7th to 21st. the Bruckner Festival at Linz will be held July 18th to 21st, one at Salzburg, July 25th to August 31st, and the Passion Play at Thiersee is scheduled for every Sunday from May to September, inclusive.

Go South in Air-Conditioned Comfort

"Go South in Air-Conditioned Comfort," is suggested by the Seaboard Air Line Railway.

Air-conditioning is as necessary in winter as it is in summer in order to have healthful, uniform temperatures throughout your journey -to heat the air while traveling through cold climates-to cool it in Florida's warmth.

Air-conditioning is extremely important in any season to provide filtered and purified air -free from dirt, dust, cinders, and germs; to humidify the air to the most comfortable bodily reaction-and to constantly circulate the clean, tempered air-without dangers of hot, stifling dry heat or drafts.

The Seaboard Air Line suggests also taking your auto along, and enjoy the use of it while south without the possible dangers and strains of driving it there through states that have snows and sleet that make the roads hazardous. When two or more people travel on tickets good in Pullman cars, only one extra ticket is required for the shipment of your automobile. No crating or packing is necessary-just drive your car to the freight station-drive it away at your destination.

One of your greatest pleasures during your winter sojourn can be your trip to and from the South. The Seaboard Air Line's luxurious, completely air-conditioned trains offer you the finest in transportation, and there's a fare to fit every purse in the reduced winter excursion fares now in effect whether your stay is for a few days or the rest of the season.

Penny-a-mile Railroad Fares

Penny-a-mile railroad fares, generally considered one of railroading's Utopian dreams, recently went into effect in England.

(Continued on page xxxiv)



THE FAMOUS WORLD CRUISER

Warint SAILS EVERY SATURDAY

FEBRUARY 8, 15, 22, 29

MARCH 7, 14, 21, 28

Sunlight or moonlight, it makes no difference in Nassau, so far as the sheer joy of being alive is concerned. Days are filled with things you wish to do, from the most active sports to the laziest loafing in the world, and the pleasantest. In the evening there are dancing, gay parties and smart social gatherings, warmed by the hospitality of these friendly latitudes and flavored with old-world courtesies. Truly, it is good to be alive, and in the Bahamas.

Every Saturday until March 28th special 6 day cruises sail from New York, with a daylight day and evening in Nassau, for as low as \$70 with the famous world cruiser Carinthia as your hotel. Also 13-day tours including hotel room and meals in Nassau (rates on application). For longer vacations, the oneway fare is as low as \$65; round-trip fares, with stonover privileges, and return by later sailing of the luxurious Carinthia, as low as \$95. No passports.

Ask your Local Travel Agent about the Cunard White Star Deferred Payment Plan or Consult Cunard White Star Line, 25 Broaduay, or 638 Fifth Atenue, New York . . . or Nassau, Bahamas, Inform Bureau, 30 Rockefeller Plaza, N. Y.

6 DAYS

The British Tradition distinguishes

CUNARD WHITE STAR

\$2.50

for an outside room with bath, shower and radio, at the

HOTEL MONTCLAIR

AND \$3.50 FOR TWO PERSONS

One of New York's largest and newest hotels, containing 800 outside rooms. Located in the center of the world's greatest business - shopping district — the Grand Central Zone.

OPPOSITE WALDORF-ASTORIA

Casino Montclair, gay and beautiful, one of the most popular rendezvous in town—Dancing at Luncheon, Dinner and Supper.

LUNCHEON from 65c.
DINNER from \$1.25
SUPPER SPECIALTIES
from 75c.

Two Orchestras—Never a Cover Charge

---HOTEL----Montclair

Lexington Ave. 49th to 50th Sts.

NEW YORK CITY

(Continued from page xxxiii)

Two great British railroads, the Great Western and the London, Midland and Scottish, as an experiment abolished the minimum Monthly Return Ticket fares in the South Wales industrial area on January 1st, according to Mr. T. R. Dester of the Associated British Railways.

"From January 1, 1936 the penny-a-mile third class and three-halfpence-a-mile first class rates will apply to any journey in the area no matter how short, and such tickets will carry also the full month's availability," Mr. Dester said. "The area covered by the experiment is the main line from Newport through Cardiff. Neath, Swansea and Llanelly to Carmarthen, all branches to the south of this line and north as far as Abergavenny, Pontsticill Junction Merthyr), Colbren (near Tunction Llandilo, including the Eastern and Western Valleys, the Rhondda Valley and the Lynvi and Ogmore Valleys.

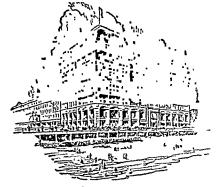
"Hundreds of stations will be affected by the experiment."

Bermuda Fishing Established

A white Marlin weighing sixty-six pounds and measuring over eighty-eight inches, the first of this type of deep-water fish taken in

(Continued on page xxxvii)

The Breakers



On the Ocean Front

ATLANTIC CITY, NEW JERSEY

Situated Directly on the Boardwalk and Convenient to All Piers and Amusements

Per day, per person \$5.00 With Meals Private Bath European Plan \$2.50 Private Bath

HOT AND COLD SEA WATER IN ALL BATHS Excellent Food — French Cuisine — Garage

Emanuel E. Katz, Man. Director

PLACES for REST in the ISLES of REST



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Shelded by its unmatched waterside and its Princess aegis from even the quiet no ses of placid Bermuda On Hamilton Harbor Fifty years under the same management blending a deference and fineness a relief from cares a nicoty of dining and entertaining and a statisfying realization of wents anticipated Consult your local agent or address inquiries to the Princess Hotel Bermuda Hotels Inc. 500 5th Ave New York N. Y. PEnnsylvania 6 0665

ELBOW BEACH

Bermuda's only beach hotel with the world's finest surf bathing and sunshine Beauthful surroundings conducive to rest and releasing. Parched high above the beach excellent accommodations delicious cu sine and attentive service. For information rates and reservations—your travel agent the hotel direct or for definite reservations write our New York Office 51 East 42nd St. MUrray. Hill 2 8442



BELMONT MANOR

High above the islands of Hamilton Harbor set in a somi tropical park with breath taking views on every side. Facilities for devotees of all sports. All conveniences for comfort. Maintaining best social traditions and catering to discriminating and refined people. Finest cuisine. For information etc.—John O. Evens. Manager. Belmont. Manor. Bermuda or authorized travel agencies. Bermuda. Hotels. Inc. 500. 5th. Ave. New York. N. Y. PEnnsylvania 6.0665.



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Offering a wide diversity of entertainment and recreation fresh food products from its own extensive gardens and dairy farm as well as every assistance in making arrangements to give guests the maximum enloyment and satisfaction while visiting Bermuda. Reasonable tariffs: Write direct for further information and rates or consult your nearest authorized travel agent or J. J. Linehan Suite 1230 R. C. A. Bldg. Rockefeller Center. Circle. 75679



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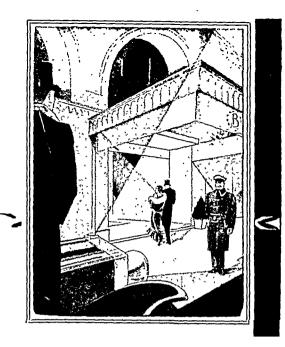


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SEDGEFIELD INN

GREENSBORO, N. C.



7_

(Continued from page xxxiv)

these waters, was caught with rod and rect two and one-half nules southerst of St David's Light, Bermuda, by Mrs Stanley W Smith of Pittsburgh on January 22nd

Mrs Smith pulled in her fish on a twentyfour thread line, nine ounce tip, using cut but Bermuda anglers hail the catch as proof of the sporting possibilities of the island waters

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Only recently, Mr Rounthwaite brought to Bermuda two fishing captains experienced in deep sea angling, Captain Charles Christianson, who piloted Mrs Smith's boat, and Captain Harold Driscoll, whose thirty-six foot trawler is famous along the New Jersey and Long Island coasts

Wahoo are to be found in increasing abundance in Bermuda waters, Mr Rounthwaite

(Continued on page xxxix)





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BEACH

ROBERT KLOEPPEL, Owner-Director

(Continued from page xxxvii)

said, adding that regularly large catches are being made of Tuna, Amberjack, Barracuda, Yellow-tail and Mackerel, Mr. Rounthwaite believes that deep sea anglers will be increasingly enthusiastic about the islands with Mrs. Smith's Marlin catch.

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If you wish—specify the date your vacation starts, the time you wish to spend away, how much you want to defray for transportation, and this department will suggest several ways of getting the most for your "vacation dollar."

Travel Brevities

Among the guests recently seen at the St. George Hotel in Bermuda, was Dr. Edgar Kahn of Michigan.

Passengers sailing on Furness Bermuda Line steamers during the past few weeks included Dr. and Mrs. V. Ray of Cincinnati.

(Continued on page xl)

HEADQUARTERS 130th ANNUAL

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45" STREET - JUST WEST OF TIMES SQUARE W STILES KOONES - MANAGER

(Continued from page xxxix)

Aboard the "Nerissa" of the Furness West Indies Line, sailing to the Windward and Leeward Islands, Dr. Geo. S. King and Dr. A. G. Dana of New York City, were numbered among the passengers.

GUESTS at the Hamilton Hotel in Bermuda included Dr. and Mrs. A. B. deGrandpre of Plattsburg, N. Y., and Drs. Wayne Hull and S. B. Lucent of Patterson, N. J., who arrived via the "Monarch" in January.

THE HOTEL INVERURIE played host to the following doctors during the past month or so: Dr. and Mrs. L. Kinney of Norwich, N. Y., Dr. and Mrs. Louis M. Forbes of Providence, Dr. and Mrs. Arthur A. Cushing of Massachusetts, Dr. and Mrs. Roy E. Mabrey of Boston, Dr. and Mrs. H. C. Kellogg of Rochester, Dr. and Mrs. D. Payne of Liberty, N. Y., Dr. Leo Horney, and Dr. and Mrs. Ernest E. Arnheim of New York City.

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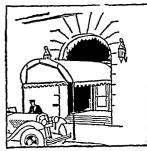
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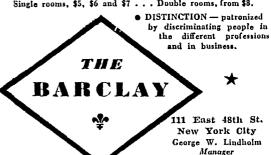
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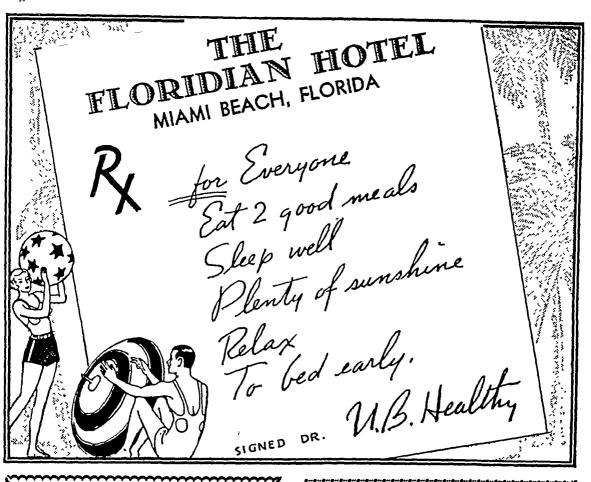
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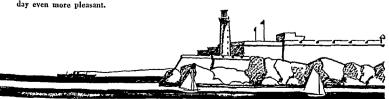
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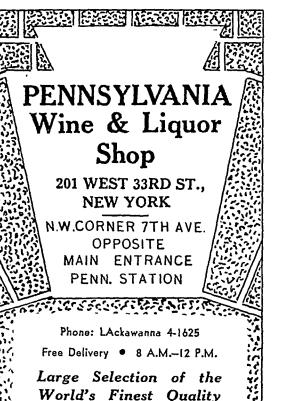
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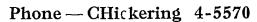
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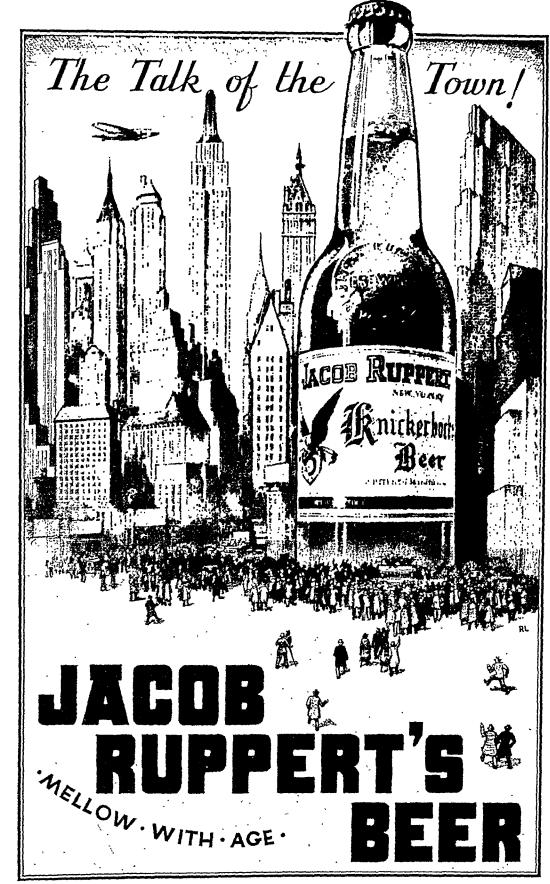
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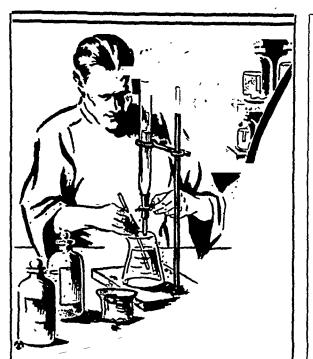
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> Radium Therapy

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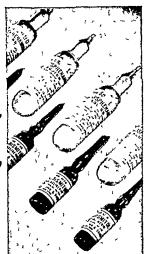
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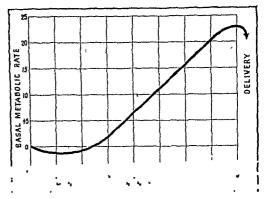
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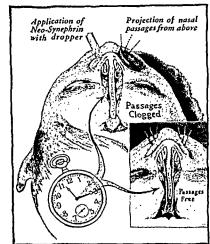


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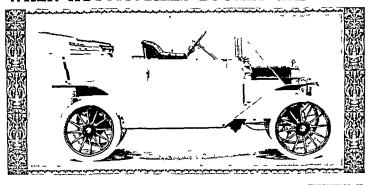
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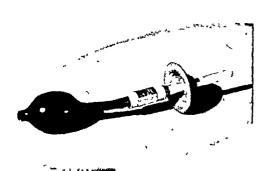
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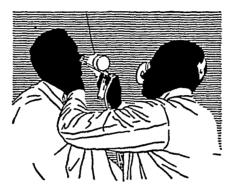
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New York STATE JOURNAL of Medicine

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FEBRUARY 15, 1936

Vol 36

CHEONIC ARSENICAL POISONING

Symptoms and Sources

A BENSON CANNON, M D, New York City

Associate Professor of Dermatology, Columbia University, College of Physicians and Surgeons

and adults, were used as controls enty-one normal persons, both children writing, while analyses of blood from sevtom this point of view up to the time of mine-treated syphilities, have been studied all, 10/ patients, exclusive of arsphena-Dermatology of the Vanderbilt Clinic tion to those attending the Department of patients from my private practice, in addi-I extended the investigation to include have as representative a group as possible, in order to vious arsenical medication in whom we had no reason to suspect prethose patients with similar symptoms but lyze for arsenic the blood and urine of senie, we decided to go further and anatained very considerable amounts of ar-

The results of the laboratory tests were on the whole surprising and in some instances striking his a miscellaneous stances striking his percent a miscellaneous and second compations, we found attentional compations, the 486 mg per ranging from a trace up to 486 mg per ranging from a trace up to 486 mg per ranging from a trace up to 486 mg per ranging from a trace up to 486 mg per ranging from a frace in 500 grams of dry specimen Biopsies and bistochemical examinations of shin and histochemical examinations of shin and

* For our laboratory analyses we are midebted chiefly to Dr E H Meching, Research Associated by Chimpia University The crate in Dermatology, Columbia University The method used is that of Macching and Ginna The urner specimens and some of the bloom were done by Dr C N Myers All arsening reports throughout this paper, indices otherwise of metallic arsenine per 100 grams of any specific arsenine per 100 grams of dry specimens.

In view of the growing concern that is being manifested both by the general public and by the maedical profession in regard to the risks of arsenceal poisoning from incidental sources, it seemed to me that the story of our recent investigations in this field might be worth recording

a few instances given temporary relief, treatment of various kinds, which had in some had long instories of symptomatic already been examined elsewhere, and Many of these patients had disturbances more or less vague but persistent digestive pairment of vision, muscular atrophy, and becessuesias and paresthesias, tremors, imrestations, other disturbances, such as hytound, in addition to the cutaneous manipatients more carefully, we frequently When we came to study these ing of hair, and abnormalities of pigmenparticularly of the palms and soles, tallaccompanied by thickening of the skincuronic poisoning by arsenic eruptions scuted skin conditions suggestive of Chinic, an increasing number who prement of Dermatology of the Vanderbilt among patients admitted to the Depart-Some years ago we began to notice, this field might be worth recording

practed to make their condition worse.

Among these latter especially, we discovered some patients with a history of arsenical medication, and others who, though unavase of having had arsenic mit have the worst long periods. When we found that the blood and urms of these patients contributed in the proof of the proo

and in a considerable number, had ap-

although in the majority little or none,

for arsenic by means of the Justus-Brünauer-Osborne method revealed typical granules of arsenic trisulphide. Some of these findings have been reported in detail in the paper of Cannon and Karelitz² on "Vitiligo from Arsphenamine Dermatitis and from Arsenic of Unknown Origin."

The major problems immediately confronting us were: Where did this arsenic come from? Was it responsible for the patients' symptoms, or was it merely an

incidental finding?

To the first of these questions a partial answer was already at hand. It was just about this time that public attention was being drawn to the dangers of poisoning from fruits and vegetables sprayed with compounds of lead and arsenic. In 1925 the British health authorities had threatened an embargo on American fruits whose spray residue contained more than 1/100 of a grain of arsenic trioxide per pound of fruit. This limitation had been in force in England for over twenty years, ever since a British Royal Commission concluded its investigation of the famous Manchester epidemic of 1900, in which six thousand persons were poisoned, seventy of them fatally, from beer contaminated with arsenic.

Meanwhile, in the United States, the problem of insect control had grown to The apple is formidable proportions. said to have five hundred species of insects feeding upon it, and virtually every cultivated crop has its scores and, in some cases, hundreds of different kinds of insect enemies. To combat their ravages, the use of insecticides has increased by The United States leaps and bounds. Census Bureau estimated the total manufacture of arsenates in this country for 1929 at \$5,537,951, of which lead arsenate alone, the standard arsenical insecticide of most universal application, accounted for \$3,304,351. This represents an increase of nearly three hundred per cent in the use of lead arsenate during the period from 1919 to 1929, and an increase of nearly one thousand per cent for calcium arsenate over the same period. ures for 1933 indicate some falling off in production since 1929, due probably to economic conditions. Attempts of the Food and Drug Administration to regulate more stringently the arsenic residues on sprayed fruits and vegetables have brought to the fore the question as to how much arsenic people might be taking into the system from other sources as well. Within the past few years not only scientific publications but popular magazines, books, newspapers, and radio have brought to the notice of the general public the risks of poisoning from arsenic contained in various foods, candies, tobaccos, in cosmetics, in paints, wall-paper, and dyed clothing—to cite only a few common examples.

Most of these have been known to toxicologists for generations, but chiefly as sources of acute poisonings, especially fatal ones, which come up for medicolegal investigation. In such cases, particularly where foods are involved, the arsenic is more often than not added, either with homicidal intent, or by accident or gross negligence. The significance of the present cases lay in the possibility that large numbers of people, exposed continuously to small amounts of arsenic from a multitude of everyday sources, might be slowly but none the less surely poisoned through its cumulative effects; and that this largescale poisoning—if it existed, would be all the more dangerous for being derived from sources for the most part perfectly legitimate in themselves.

Of course we could not conclude from our laboratory findings alone that these patients were suffering from arsenical poisoning. It was necessary first to inquire much more carefully into the case histories for other possible origins of their symptoms; to eliminate suspected substances from diet and surroundings; and to watch the results of treatment, especially treatment designed to hasten the excretion of arsenic.

As a result of these measures, there gradually accumulated a considerable number of cases in which the symptoms were quite definitely traced to poisoning from arsenicals; side by side with these were others originally thought to be cases of arsenical poisoning but eventually shown to be due to other causes. In still other cases, there was some evidence that arsenic was at least a contributory factor, but a final decision must await the solution of additional questions. It was hoped that the inclusion of all types of cases in our account might help to stimulate interest in both the possibilities and the short-

Symptoms Investigated from the Point approach. comings of our current methods of

original trouble, the entire cycle would With exacerbations or recurrences of the falling of hair usually appeared later, the extremmes, Joint pains, tremors, and in snonesnes Buildin bue Builling reordi in by attacks of nausea, vomiting, and sore that their skin eruptions had been ushered in addition, some related nervousness. troubled by insomina, loss of weight, and dermatitis with intense itching, would be that persons suffering from a generalized it in point of time. It was to be expected tion and ailments directly associated with tially healthy, except for their skin condient physical status, seemed to be essenthat the overwhelming majority of the we could not but be impressed by the fact appeared shortly after birth. HOWever, probability congenital, as the changes had ties of the nails and hair, were in all neurodermite, associated with abnormalitosis palmaris et plantaris, and one of glandular deficiency. Two cases of kerathe Department of Endocrinology for been treated or were under treatment in malities; several, for example, had already

that they are given here in detail. tamily, living under identical conditions, occurred in three members of the same trate so well the order of events as they Cases 11, 12, and 13 of our series illusbe repeated.

not include patients whose dermatosis was traced beyond reasonable the counts, since some patients presented two or more complaints

> Ceneral Survey. Poisoning. of View of Chronic Arsenical

Lable L. entied the dermatologist may be seen from various conditions for which patients contory of an eruption having preceded. The quently-although not invariably-a liecombiguit; in these cases there was treconditions constituted the patient's chiet and soles, Sometimes one of these latter of hair, and hyperheratosis of the palms ciated with brownish pigmentation, falling dermaths was in many instances assopoorer but no wiser than before. and other localities, only to and themselves or chines and private physicians in this Many of the patients had made the rounds months preceding the first visit to us. had developed within several weeks or of remissions and exacerbations. A tew solvost all of long standing with histories of one form or another. These eases were by tar the most common was a dermatitis attention, either privately or at the clinic, under investigation here first came to our various complaints for which the patients Dermatilis, Of the

gave evidence of other diseases or abnor-On examination, a tew of these patients

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TABLE I.

Case 11. H.G.T., well-nourished and healthy appearing young woman of twenty-two years, consulted me on November 29, 1930, for loss of hair dating from an attack of grip and nervous collapse four years before. The hair was quite thin over the scalp. There was no dandruff, nor were there any visible skin lesions. Blood count and urinalysis were normal, and the blood Wassermann was negative.

The patient volunteered the information that her hair had been coming out in much larger quantities since the middle of July, during a sojourn in Switzerland in company with her father and mother. While living at a hotel, all three had been seized with nausea, vomiting, abdominal cramps, and diarrhea, accompanied by general weakness, vertigo, and itching of the skin. In addition, she herself had had a sore throat and a universal rash, followed by peeling of the skin over the entire body. It was at this time that she had noticed her hair coming out more freely than before. Simultaneously, guests in other hotels of this and neighboring towns were reported to be suffering from similar symptoms, and the trouble was diagnosed by local physicians as acute arsenical poisoning caused by eating fruits and vegetables which had been sprayed with arsenical compounds.

Since that time the patient has continued to suffer from time to time attacks similar to the first one, although less severe. She is also troubled with burning sensations in the soles and palms and here and there over

Table II.—Blood Arsenic in Three Members of One Family Over a Period of Four Years

(in mg.	per 100	or mg	dry	specimen	ı)
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,			
Dale	Case 11 (Miss T.)	Case 12 (Dr. T.)	Case 13 (Mrs. T.)
3-15-31		1.0	
4-25-31		1.13	
5-20-31	0.0804		
10-29-31	0.36		201211
11-11-31	,		0.181
12- 2-31			0.099
12-14-31	3.94	0.305	
2-2-32	0.07	0.000	0.0298
2-17-32	• • • • •	Trace	0.0298
4-13-32 5-20-32	0.000		
11- 3-32	0.002	0.33	0.000
12-18-32	0.04	• • • • • • •	0.19
1-17-33		0.035	
3-22-33	0.005	*****	
4-24-33		0.08	
5-23-33	0.000		0.096
10-24-33	0.039	0.13	0.15
12- 8-33	0.03		
1-8-34	0.045	• • • • •	1.17.
2-10-34	0.16	.7.77.	0.05
4-10-34	4.444	0.09	
5-12-34	0.009	i.io	
5-15-34 6- 6-34	1.30	1.10	
6-22-34	1.50	• • • • • • •	0.09
1-18-35		0.05	
4-19-35	ó. í í · ·	0.014	0.07
Arse	NIC IN HAII	3	
6- 5-31	• • • • • •	0.523	0.000

the skin. Her physician had reported her liver considerably enlarged.

These recurrences have sometimes coincided with the ingestion of fruit found to have been sprayed with arsenical compounds, and have subsided when that fruit was eliminated from the diet. The patient explained that for the past two summers, while vacationing in Maine, in a locality where no arsenical sprays were used on the fruits and vegetables, all three members of the family felt perfectly well. On their return to New York last fall, they stopped at a friend's house in Connecticut, where after having eaten two washed and baked home-grown apples apiece for supper at six P. M., they developed acute symptoms similar to those of the original attack. The patient's father, who had in addition eaten a washed raw apple before going to bed, became violently ill at five A. M., and the patient and her mother were stricken two and one-half hours later. It was then learned that the apples had been sprayed four times during that season with an arsenical compound. On two other occasions, within a month after returning to New York City after a vacation during which only unsprayed fruits and vegetables were eaten, the patient had suffered recurrences of gastrointestinal symptoms, including slate-colored stools, and the other members of the family were similarly affected.

Treatment for the condition was instituted in the form of sodium and calcium thiosulphate in alternating courses, both intravenously and by mouth. The patient's response was soon evidenced by a regrowth of hair and by marked improvement in her general condition. The amounts of arsenic found in the blood may be seen from Table II, in which are included also the blood arsenic figures for the other two members of the family, father and mother of the patient in Case 11.

Case 12. Dr. A.S.T., physician, sixty-two years of age, father of H.G.T., consulted me on March 10, 1931, complaining of itching of the skin, with frequent attacks of hives, and occasional nausea and vomiting. He also complained of fatigue, general weakness, and vertigo. The general physical examination was negative, except that the liver was palpable. The blood count was normal, and the blood Wassermann negative. The patient reported having been operated upon for duodenal ulcer five years before, but had been perfectly well since that time until the previous July, when his present trouble had appeared while he was in Switzerland with his wife and daughter. At this primary acute attack he had vomited some blood. Recurrences of the gastrointestinal and other symptoms (without bleeding)

10, 1929, for a generalized skin eruption of three neeks' duration. He stated that he Case 36 RA, twenty-six years, male Devish teacher, came to the Department of Dermatology, Vanderbilt clinic, on May 1020 for a generalized clinic,

interest,

Blood

The blood count, blood

PH.1.

and soles, has also several features of accompanied by keratosis of the palms Another case of dermatitis, this one

.oruga leted a reduction in the blood arsenic calcium thiosulphate therapy, and paralin all three patients tollowed sodium and blood; that marked clinical improvement and with the finding of arsenic in the found to have been sprayed with arsenic, cided with the ingestion of truits later the original one and recurrences) comstracks; that some of these attacks (both uniformity in the time and nature of their ing the same toods, should show such living under identical conditions and eatbelieve, that three members of one family, It is of considerable significance, we

the liver. was also evidence of some involvement of In two of the three cases there squinau brins in one case), suggestive of polytions in the extremities (with neuralgic numpuess, tingling and burning sensaoccasional vertigo, talling of the hair, chronic poisoning, namely, weakness and symptoms more characteristic of cutaneous phase was in turn succeeded sint 'bun't tive skin manifestations. the third case by pruritus without objecor urticaria, with intense itching, and in dermatitis, in another by recurrent attacks the one case, by a generalized extoliative the initial symptoms were followed, in factor in uncovering the cause 'puosas prominent and constituted an important gastrointestinal symptoms were the most initiated by an acute phase, in which the First, the poisoning was several angles. The above cases are illuminating from

bers of the family. lower than that of either of the other memjevel of this parient has been consistently have been accompanied by a rise in the in mild form, even during treatment. As in occasional return of the original symptoms, the medication, although there has been an patient has telt marked improvement under The amounts may be seen in Table II. The tests were made for the presence of arsenic.

tions for recutrent ulcer, both by x-ray and gastric analyses, had been consistently truit At these times, repeated examinahad since followed the eating of sprayed

The variations in arsenic content of the per one hundred grams of dry specimen. for arsenic, showed 1.0 mg, metallic arsenic A blood specimen of March 15, analyzed มธนิฐเเริง

test on April 19 showed the blood arsenic tannng. 05 mg. arsenic, was taken on Janu-ary 21, 1935, when the patient said he had "never felt better in his life." A follow-up men, reported by the laboratory as coning fine." The next to the last blood speciwhen the patient described himself as "feeligures appeared to coincide with periods iree intervals, while the lower blood arsenic of arsenic as compared with the symptomof blood taken during these recurrences mild, of the original symptonis. Analyses time to time by recurrences, more or less improvement, which was interrupted from tion and by mouth, brought about marked phate, in alternating courses, both by injecfreatment with sodium and calcium thiosulthe figures of the subsequent analyses. blood from this time on may be seen from

was also numbness in the hands and arms scalp, and the joints of the left hand; there persistent neuralgic pains in neck, throat, and she had been troubled with sharp and her hair had been coming out in quantities, Since then ugo, and extreme weakness diarrilea, with headaches, sore throat, vercharacterized by nausea, vonnting, and usd nad an acute gastrointestinal upset, well until the previous summer, when she thinning of the hair over the top of the scalp. She stated that she had always been scaly condition of the scalp, with marked perfectly healthy except for a dry, slightly consulted me on April 6, 1931, for falling

No 12 and mother of Patient No. 11, first

still low (Ott mg) and the patient free

Mrs. AST, wife of Patient

venously and by mouth, and frequent blood embhaie in alternating courses, both intrabaricut was given sodium and calcium tinoor vegetables (See Case History II). The with the eating of arsenic-sprayed fruits recurrences have been definitely associated appearance in July 1930, and some of the ring in milder torm ever since their first The symptoms described have kept recurpressure was 128/84

although there was a slight redness around

at intervals. The patient had no skin lesions,

plood Wassermann was negative

the unger nails

Case 13

trom symptoms,

citemistry, and urine were normal

had had an eczema limited to the face (especially the forehead) and the fingers for the past three years, but that it was not until two weeks ago that the process had spread to other parts of the body. Upon examination, he presented a profuse erythematosquamous eruption, with some scaling, on the trunk and extremities, including the hands and the feet between the toes. The scalp and forehead were covered with fine dry yellowish scales. There was marked keratosis of the palms, with extensive fissuring; the soles were similarly involved but the process there was less advanced. Two successive examinations for tinea were negative. The Wassermann and Kahn tests were negative. Upon being questioned the patient admitted that he had begun taking Fowler's solution (three to ten drops) two months before, and had continued until ten

A blood specimen taken on the day of admission was found to contain .163 mg. of arsenic, and a urine specimen of a few days later showed .212 mg. arsenic. The patient was given twelve intravenous injections of sodium thiosulphate in the next five weeks. During this time the blood arsenic steadily declined, three successive analyses being reported as follows: May 13.11 mg. arsenic; May 16 .04 mg. arsenic; May 28 .02 mg.

By June 11 the patient's skin was almost clear, except for the hyperkeratosis of the palms and soles. He then stopped treatment for three months and returned at the end of that time with a vesicular rash on the dorsum of the fingers and a recurrent dermatitis of the face. At this time the blood arsenic was found to be .621, the urine arsenic .895 mg.

It is of course uncertain whether the original dermatitis was due to arsenic, but it is interesting to note that arsenical medication, instead of ameliorating the condition, caused it to spread; that sodium thiosulphate therapy was followed by a decided improvement coupled with a progressive dimnution of the blood arsenic; and that cessation of treatment for several months was followed by a marked rise in arsenic in the blood and urine, simultaneously with a recurrence of the skin manifestations. The patient dis-claimed any further arsenical medication, and other sources for the arsenic could not be found.

A few additional cases of dermatitis have been selected for brief résumés, as they illustrate fairly well the problems encountered:

Case 2. B.O.C., sixty-four years, male, artist, consulted me on March 3, 1930, for an intensely itching eczema of the back,

shoulders, and extremities, of three weeks' duration. There were numerous red, scaling, crusted and excoriated areas, from dime- to palm-sized, mostly on the flexures, Wassermann reaction was negative; examination for tinea was negative; blood chemistry was normal; and the blood arsenic was .115 mg.

The patient's general health had been excellent. He spends his time painting in a studio on his farm. He had never taken arsenic in any form. The rash cleared up under sodium thiosulphate medication, but recurred a few months later. At this time the blood arsenic was found to be .952 mg. Sodium thiosulphate was again tried, both by injection and by mouth, and the skin became normal. The blood arsenic taken after all manifestations had disappeared,

was reported 0.000.

Case 4. P.B.P., male, fifty-five years, fruit-grower, came to me on October 3, 1933 with an acute generalized dermatitis of one month's duration, most marked on the face and extremities. The patient had had a recurring vesicular dermatitis of the face and hands for fifteen years, but during the past month the condition had become almost universal. He had obtained no relief from soothing baths, lotions, ointments, and two x-ray treatments. A tentative diagnosis of fungus infection was made, but repeated examinations for fungi were negative, and the condition grew worse under corresponding treatment. Skin tests done with the ingredients contained in the various lotions and ointments the patient had applied also gave negative results. The blood Wassermann was negative.

Meanwhile I learned that the patient, although resident in New York, had a large apple farm in Virginia, where he raised fruit for export. He sprayed the apples four times a year with an arsenical preparation, and admitted that his exacerbations and recurrences coincided with his visits to the farm. His blood was now taken for arsenic and found to contain .17 mg. Rapid improvement followed treatment with calcium and sodium thiosulphate, with olive oil used locally. By December 29 his skin was entirely clear, and his blood at that time

showed .05 mg. arsenic.

Case 5. W.D.T., male, fifty-six years, jewelry salesman, consulted me on September 30, 1930, for a universal dermatitis of six months' duration, accompanied by intense itching, insomnia, nervousness, and loss of The condition had begun on the thighs and groins as a red rash, gradually spreading all over the body, until now there was universal redness, scaling, thickening and excoriation. The blood chemistry and the urine were normal, the Wassermann was

Tests in Relation to Arsphenamine Cannon and Karelitz on "Intradermal tion, the reader is referred to the paper of

We would now consider briefly some

came to our attention. tor which the patients in this series first of the other conditions besides dermatuts "crinatitis."

arsenic. She had never taken (two packages) was found to contain .0025 mg. arsenic analyzed for arsenic in the beginning, and hair rinse used by this patient had been and she felt much better generally, mg m well, the garlic odor had disappeared, ment was pronounced Her hair was commg. Daring tine tine the patient's improve-040, to drop in a few weeks more to .046 cation, the blood arsenic had risen to 2.04 a few weeks of sodium thiosulphate medinormal, Blood arsenic was .218 mg. After count, blood chemistry and urinalysis were hemoglobin was a little low, but the blood physical examination was negative, Jus pheral neurius. This patient was pale, easily fatigued, and nervous, Her general of the perspiration, and symptoms of periwith frequent nausea, a marked garlic odor years, in whom loss of hair was coupled arsenical derinatius, such as Case 11, there was one (Case 17), a woman of forty partial alopecia appeared as a sequel to an addition to those in which falling hair or Alopecia and falling hair (18 cases). In

Keralosis of the palms and soles (16 physician. would be manifold, as in the case of the for the indirect absorption of small amounts contact with arsenicals, but opportunities He denied direct supervising the work, metics, who was in his inboratory daily, on admission) was a manufacturer of cosamount of arsenic in the blood (1.85 mg. areata patient (Case?) who had the highest with one possible exception; the alopecia questioning failed to reveal any other source, had ever taken arsenic medicinally, and return for treatment. None of these patients ment. The two remaining patients did not to the alopecia, failed to respond to treatwho had an extensive vitiligo in addition sponded with a regrowth of hair, A third, patients, given sodium thiosulphate, re-.814 mg, or nearly twice that of the average for the entire group. Two of these areata, taken at the first visit, averaged plood arsenic of the patients with alopecia were five cases of alopecia areata, J.pc amounts of arsenic in the blood, and there origin but associated with considerable cases of premature baldness, of unknown There were also in this group several

ases). Keratosis of the palms and soles,

inprove. cothing ointments. Luc of cornstarch and oatof in spone three weeks, out bue monuration and the dince pooly. The patient and that it had spread the

to tail sldsrt and sroin . was at its height, showed nog sambje taken while this nodule on the site of the oluted in about four weeks, at the arm, and was intensely A until it covered the entire replienamme. This local the site of the intradernial queared a thrw beareage iner the latter hgure was ob-Bm 12. of gm +0, mord at two months, and four tions involuted slowly over imatitis seven cm. in diamcase of old arsphenamue, are of each injection, surreaction, consisting of a studie, these showed a ind silver arsphenamine, ermal tests were performed original dermattis had " uary 26, 1931, about three strongly suggestive of er batient developed mani-

Means Means qà scy Esuout to ing yould have ni tasiteq syl unt of arsenic dns of or App. viris root in any even when she had ot one are to beat irritant, as the later · н илиси шау гиен тесит would suffice to start a tolerance, when almost arsenic closely approachhaps already accumulated two preceding ones, the ther words, in cases such rely the immediate excittinal cause, may not have he shaving cream, instead ing to speculate whether in

ing preparation, and that it had spread the next day to the entire body. The patient avoided this shaving preparation, and the dermatitis subsided in about three weeks, following the use of cornstarch and oatmeal baths, and soothing ointments. The psorrisis did not improve

A little later this patient developed manifestations more strongly suggestive of arsenic On February 26, 1931, about three months after his original dermatitis had cleared up, intradermal tests were performed with neo, old and silver arspheniume Seven days afterwards, these showed a marked positive reaction, consisting of a nodule on the site of each injection, surrounded, in the case of old arsphenamine, by an area of dermatitis seven cm in diam-These reactions involuted slowly over a period of about two months, and four blood specimens taken during this time showed arsenic from 04 mg to 21 mg A few days after the latter figure was ob tained, the patient appeared with a flareup of dermatitis on the site of the intradermal test with old arsphenamine This local dermatitis spread until it covered the entire external aspect of the arm and was intensely pruritic. It involuted in about four weeks, leaving a small nodule on the site of the injection. A blood sample taken while this local recurrence was at its height, showed 76 mg arsenic, more than treble that of any previous figure

It is interesting to speculate whether in this instance the shaving cream, instead of being the original cause, may not have constituted merely the immediate exciting factor In other words, in cases such as this and the two preceding ones, the patient has perhaps already accumulated in his organism arsenic closely approaching his limit of tolerance, when almost any local irritant would suffice to start a general reaction, which may then recur even without the local irritant, as the later attacks of Case 34 occurred-if we are to credit her testimony-even when she had not been in contact with orris root in any form It is of course hardly to be supposed that the minute amount of arsenic introduced into the skin of the patient in Case 51 in the intradermal test would have any effect upon the arsenic content of the blood, unless by the provoking of a general allergic reaction, arsenic already accumulated in the skin or in internal organs should be set free into the blood stream For other cases and discussion of arsenic in connection with polyvalent sensitiza-

tion, the reader is referred to the paper of Cannon and Karehtz³ on "Intradermal Tests in Relation to Arsphenamine Dermatitis"

We would now consider briefly some of the other conditions besides dermatitis for which the patients in this series first came to our attention

Alopecia and falling hair (18 cases) addition to those in which falling hair or partial alopecia appeared as a sequel to an arsenical dermatitis, such as Case 11, there was one (Case 17), a woman of forty vers, in whom loss of hair was coupled with frequent nausea, a marked garlic odor of the perspiration, and symptoms of peri-pheral neuritis. This patient was pale, easily fatigued, and nervous. Her general physical examination was negative hemoglobin was a little low, but the blood count, blood chemistry and urinalysis were normal Blood arsenic was 218 mg After a few weeks of sodium thiosulphate medication, the blood arsenic had risen to 204 mg, to drop in a few weeks more to 046 mg During this time the patient's improvement was pronounced. Her hair was coming in well, the garlic odor had disappeared, and she felt much better generally hair rinse used by this patient had been analyzed for arsenic in the beginning, and was found to contain 0025 mg arsenic She had never taken (two packages) arsenic

There were also in this group several cases of premiture baldness, of unknown origin but associated with considerable amounts of arsenic in the blood, and there were five cases of alopecia areata blood arsenic of the patients with alopecia areata taken at the first visit, averaged 814 mg, or nearly twice that of the average for the entire group. Two of these patients given sodium thiosulphate, responded with a regrowth of hair. A third who had an extensive vitiligo in addition to the alopecia failed to respond to treat-The two remaining patients did not return for treatment None of these patients had ever taken arsenic medicinally, and questioning failed to reveal any other source, with one possible exception the alopecia areata patient (Case 7) who had the highest amount of arsenic in the blood (185 mg on admission) was a manufacturer of cosmetics who was in his laboratory daily, supervising the work He denied direct contact with arsenicals, but opportunities for the indirect absorption of small amounts would be manifold, as in the case of the physician

Keratosis of the palms and soles (16 cases) Keratosis of the palms and soles,

Skin tests with the bath salts gave positive reactions. All remedies directed toward the elimination of arsenic were now stopped, and the patient was given a tar ointment, soothing baths, and carbon arc light. After ten light exposures his skin had become practically normal and he was free from itching.

Case 33. Occupational dermatitis from orange peel, lemon peel and bay rum, originally attributed to arsenic. Miss B., fiftyfive years of age, masseuse, came to me on June 23, 1933 with a history of repeated attacks of an acute dermatitis involving the face, neck, and upper extremities. A blood specimen showed .12 mg. arsenic. more specimens taken at six-week intervals, after sodium thiosulphate medication, showed .29 mg. and .054 mg. respectively. Neither fluctuations in blood arsenic, nor sodium thiosulphate therapy had any effect upon the dermatitis. On the other hand, the patient's skin gave strongly positive reactions to orange peel, lemon peel, bay rum, potassium dichromate, salicylic acid, and tincture of cantharides. The first three of these ingredients she had been using in her work. When contact with these irritants was removed, even though treatment directed toward the elimination of arsenic was discontinued, the skin gradually cleared.

Case 85. Dermatitis from hair dye, with presence of arsenic in the blood. Mrs. C.P., a generally healthy woman of fifty years, consulted me on December 5, 1933 for a dermatitis of the scalp, right temple and around the hair lines. Although arsenic was present in the blood in amounts of .195 mg. and .30 mg., on two occasions, the dermatitis was traced to the use of a henna hair dye, and disappeared after removal of the dye and appropriate treatment.

If the four preceding cases offer fairly conclusive evidence of being due to causes other than arsenic, the following three illustrate the type of case in which the evidence is so conflicting that arsenic can neither be incriminated nor wholly absolved without further observation:

Case 34. Mrs. L.Y., aged forty-eight years, consulted me on November 13, 1930, for a dermatitis of the forearms and axillae which had been present at intervals for one year. The present outbreak had begun three weeks before, and was attended with increasing itching. The dermatitis consisted of numerous dimeto palm-sized red, raised oozing, crusted and scaling areas, with considerable thickening of the skin in front of the elbows. There were also a few similar spots on the lower legs and thighs.

The blood chemistry and urinalysis were normal. The blood Wassermann was negative. Repeated examinations for fungi were negative. The blood arsenic was 1.1 mg. Of the numerous skin tests performed with foods and external irritants, the patient repeatedly gave a strong positive reaction to orris root. Removal of the orris root (used in talcum powder) and treatment with x-rays, supplemented by local soothing applications, caused the condition to clear up for the time being. However, the patient subsequently reported several recurrences of the dermatitis although she insisted that she had not used orris root in the meantime. On the most recent of these occasions the blood was found to have .03 mg. arsenic.

Case 49. I.C., aged thirty-five years, former furrier, was admitted to the clinic on January 21, 1930, for a generalized exfoliative dermatitis following x-ray, Alpine light, and chrysarobin treatment for psoriasis. His blood arsenic on admission was .005 mg; urinary arsenic on the same 1.23 mg. He denied ever he arsenic, although as in oil there is the possibility have been given without edge. His former provide opportunities. As he injections of private physic

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Case 51. Mr. G., aged sixty-four years, psoriasis patient, came to the clinic on September 22, 1930, for a dermatitis of ten days' duration, generalized except for the psoriatic areas on hands, back, and feet. The patient denied ever having received arsenical medication for his psoriasis. Wassermann tests of the blood and spinal fluid were both negative, although the patient admitted having syphilis twenty years before. A biopsy from the skin of the thigh showed .27 mg. arsenic, but the blood arsenic was reported 0.000. It was then learned that the dermatitis had originally appeared on the face after the patient had shaved for the second time with a well-known shav-

ing preparation, and that it had spread the next day to the entire body. The patient avoided this shaving preparation, and the dermatitis subsided in about three weeks, following the use of cornstarch and oatmeal baths, and soothing ontiments. The

psoriasis did not improve A little later this patient developed manifestations more strongly suggestive of arsenic On February 26, 1931, about three months after his original dermititis had cleared up, intradermal tests were performed with neo, old and silver arsphenamine Seven days afterwards, these showed a marked positive reaction, consisting of a nodule on the site of each injection, surrounded, in the case of old arsphenamine, by an area of dermatitis seven cm in diam-These reactions involuted slowly over a period of about two months, and four blood specimens taken during this time showed arsenic from 04 mg to 21 mg A few days after the latter figure was obtained, the patient appeared with a flareup of dermatitis on the site of the intradermal test with old arsphenamine This local dermatitis spread until it covered the entire external aspect of the arm, and was intensely pruritic It involuted in about four weeks, leaving a small nodule on the site of the injection. A blood sample taken while this local recurrence was at its height, showed 76 mg arsenic, more than treble that of any previous figure

It is interesting to speculate whether in this instance the shaving cream, instead of being the original cause, may not have constituted merely the immediate exciting factor In other words, in cases such as this and the two preceding ones, the patient has perhaps already accumulated in his organism arsenic closely approaching his limit of tolerance, when almost any local irritant would suffice to start a general reaction, which may then recur even without the local irritant, as the later attacks of Case 34 occurred-if we are to credit her testimony-even when she had not been in contact with orris root in any form It is of course hardly to be supposed that the minute amount of arsenic introduced into the skin of the patient in Case 51 in the intradermal test would have any effect upon the arsenic content of the blood, unless by the provoking of a general allergic reaction, arsenic already accumulated in the skin or in internal organs should be set free into the blood stream For other cases and discussion of arsenic in connection with polyvalent sensitization, the reader is referred to the paper of Cannon and Karelitz³ on "Intradermal Tests in Relation to Arsphenamine Dermatitis"

We would now consider briefly some of the other conditions besides dermatitis for which the patients in this series first came to our attention

Alopecia and falling hair (18 cases). In addition to those in which falling hair or partial alopecia appeared as a sequel to an arsenical derinitiis, such as Case 11, there wis one (Case 17), a woman of forty years, in whom loss of hair was coupled with frequent niuser, a marked garlic odor of the perspiration, and symptoms of peri-pheral neuritis. This patient was pale, easily fatigued, and nervous Her general physical examination was negative hemoglobin was a little low, but the blood count, blood chemistry and urinalysis were normal Blood arsenic was 218 mg After a few weeks of sodium thiosulphate medication, the blood arsenic had risen to 204 mg, to drop in a few weeks more to 046 During this time the patient's improvement was pronounced. Her hair was com ing in well, the garlic odor had disappeared, and she felt much better generally hair rinse used by this patient had been analyzed for arsenic in the beginning, and was found to contain 0025 mg arsenic (two packages). She had never taken arsenic

There were also in this group several cases of premature bildness, of unknown origin but associated with considerable amounts of arsenic in the blood, and three were five cases of alopecia areata. The blood arsenic of the patients with alopecia areata, taken at the first visit, averaged 814 mg, or nearly twice that of the average for the entire group. Two of these patients, given sodium thiosulphate sponded with a regrowth of hair A third who had an extensive vitiligo in addition to the alopecia, failed to respond to treat-The two remaining patients did not return for treatment None of these patients had ever taken arsenic medicinally, and questioning failed to reveal any other source, with one possible exception the alopecia areata patient (Case 7) who had the highest amount of arsenic in the blood (185 mg on admission) was a manufacturer of cosmetics who was in his laboratory daily, supervising the work. He denied direct contact with arsenicals, but opportunities for the indirect absorption of small amounts would be manifold, as in the case of the physician

Keratosis of the palms and soles (16 cases) Keratosis of the palms and soles,

besides appearing concomitantly with an arsenical dermatitis, may occur without other cutaneous manifestations, or it may be found together with abnormalities of pigmentation and of the nails, hair, and sweat glands. In one of our patients (Case 54) a colored woman forty-nine years of age, it was accompanied by a dry scaly lichenified dermatitis of the neck, axillary, cubital and popliteal folds and the sacral region, a brown-to-black pigmentation of the same areas, gradual loss of hair on the scalp, and complete loss of axillary and pubic hair. In four of the sixteen cases studied here, the keratosis was the only pathological condition in evidence. arsenic found in the blood of this group ranged from .000 to 4.45 mg., with an average of .589 mg. Treatment with sodiumor calcium-thiosulphate was more successful in the cases of keratosis accompanied by dermatitis than in the others. There was a larger proportion of patients in this group with a definite history of arsenical medication than in any other group studied.

Vitiligo (10 cases). The ten cases of vitiligo included in our series showed the lowest average figures for blood arsenic of any of the conditions studied, and the least response to treatment designed to hasten the elimination of arsenic. Yet some of the individual arsenic findings were surprisingly high: one case of almost universal vitiligo associated with an alopecia areata has already been mentioned; this patient showed a blood arsenic of 1.85 mg. on admission, which went down rapidly under sodium thiosulphate injections, but no clinical improvement was noted. Another vitiligo patient had 5.22 mg. arsenic in a specimen of skin taken on admission, but samples of blood and urine from this patient never showed more than .27 mg. arsenic, and his response to sodium thiosulphate therapy, as well as to oil of bergamot and Alpine light was slight. Inasmuch as the majority of these cases, together with three others, have already been embodied in a special report (Cannon and Karelitz), they will not be taken up in detail here.

Psoriasis (6 cases). Psoriasis, on the other hand, in so far as we may attach any significance to observations made on six cases—the only ones on which we have arsenic data—showed the highest average blood arsenic of any group, .933 mg. Individual blood specimens taken on admission ranged from .000 to 4.45 mg. The following case with the highest figure is of interest for other reasons as well:

Case 43. H.H., fifty-three-year-old house-wife, appeared with an eruption in the form of large red, scaling plaques with sharply defined borders, on arms, legs, and backs of the

hands; there were also some smooth yellowishpink patches on the chest and arms. The skin of the palms and soles was red and thickened. According to the patient's story, the eruption had appeared rather suddenly about seven months before, and a local physician had prescribed Fowler's solution, which she took for several weeks, then discontinued, then resumed about three weeks before admission. Meanwhile the eruption had spread and the backs of the fingers were puffy.

The blood specimen taken on the patient's admission to the clinic was reported by the laboratory to contain 4.45 mg. arsenic, one of the highest figures encountered. Sodium thiosulphate therapy was begun at once and continued for about seven weeks. During this time there was marked clinical improvement, and the blood arsenic by the end of the course was down to .09 mg. Treatment was then discontinued and the patient kept under observation. At the end of three months there appeared new psoriatic plaques over the body, and the palms and soles, which had become softer while the patient was under treatment, again showed plagues of hyperkeratosis. Local remedies were first tried for several months, without apparent benefit. Sodium thiosulphate therapy was then resumed and the patient had made both subjective and objective improvement when last seen, after six injections at weekly intervals. Blood arsenic figures are not available for this period, but the urine showed .44 mg. arsenic one week after the beginning of the last course of treatment, and a trace only, at the patient's last visit.

It is impossible to evaluate sodium thiosulphate therapy in most of the remaining cases, because x-rays, Alpine light, and local applications were also used and because the blood analyses made on these patients were not numerous enough to warrant conclusions.

One cannot help suspecting that some, at least, of the cases diagnosed as psoriasis are in reality forms of arsenical dermatitis. Oppenheim, investigating the case of a woman patient who had suffered from "psoriasis" for years, finally traced the trouble to wall paint in her dwelling. The paint was analyzed and shown to contain an enormous percentage of arsenic. Arsenic was present in the patient's urine, and her "psoriasis" cleared up rapidly under sodium thiosulphate injections, baths, and mild salves.

A psoriasiform dermatitis occurs occasionally as a reaction to arsphenamine injections, and may easily be mistaken for a true psoriasis. An arsenical dermatitis may also complicate an already existing psoriasis. It is safe to assume that the published literature contains by no means all the cases of psoriasis which have grown worse instead of better under the arsenical treatment so frequently prescribed. The development of skin cancer in psoriatic patients with his-

tories of arsenical medication will be taken up in connection with our epithelioma group. Acne (20 cases). The acne cases showed an average blood arsenic of .329 mg., with individual figures ranging from .000 to 1.79 mg. on admission. Here, as in the psoriasis group, sodium thiosulphate therapy was sup-

plemented by x-rays, Alpine light, and local applications, so that the cures obtained cannot be attributed to sodium thiosulphate

alone.

Cancer: - Epithelioma cases). Melanocarcinoma (1 case). All six patients who consulted me for epithelioma had considerable amounts of arsenic in the blood when first seen-minimum .10 mg., maximum 2.73 mg. None gave a definite history of having received arsenical medication, but one of the six, a physician, came in contact with arsenic in the course of his work. This patient (Case 8) and one other in the group had chronic skin eruptions; the remainder were free from symptoms usually associated with arsenical poisoning, except that two complained of fatigue and occa-

sional dizzy spells.

Ever since Hutchinson asserted in 1887 that long continued absorption of small quantities of arsenic may be followed by the formation of epithelial new growths, there has been a growing number of observations which appear to confirm this view. Dubreuilh⁵ in 1910 reported on arsenical keratosis in relation to cancer, and Ulimann⁶ has recently tabulated seventy-three cases, either published demonstrated, including six personal observations, in all of which epithelioma had developed after long continued exposure to arsenic. In most of these, the arsenic had been taken in the form of medication for psoriasis or other conditions, but five were from external contact with arsenicals in industry, and two followed long continued drinking of water contaminated with arsenic. Hamilton cites evidence of the arsenical nature of the keratoses, warts, and cancer of briquette makers, and thinks that the English cases of chinneysweeps' cancer and the epithelioma of English briquette makers can be traced to the arsenic in English coal.

None of the epitheliomas reported in the present study had developed on the site of any other visible skin lesion. The sites were as follows: in one patient, on the right chest; in another, on the right

cheek; in three, on the external nose, including two subsequent growths on one patient on different portions of the nose from the site of the original growth, the later growths corresponding to areas where the patient's glasses had rested; the sixth patient had an epithelioma at the inner canthus of the right eye and one on the right elbow. The procedure regularly followed was to remove the growth and irradiate the wound. In the three instances where sodium thiosulphate was given, it was followed by improvement in the patient's general condition and a reduction in the blood arsenic figure. Barring the one patient mentioned, no recurrences have been noted up to the time of writing. The rôle of arsenic

is of course problematical.

patient with melanocarcinoma, already discussed in the dermatitis group (Case 49) presented upon the dorsal surface of the right great toe a half-dollarsized ulceration which had appeared while he was being treated for his dermatitis. He also had at this time two melanotic spots about five mm, in diameter on the thenar eminence of the right palm, and a few others on the dorsum of each hand. A biopsy from the toe revealed melanocarcinoma. The toe was amputated but the patient died with metastases about eight months after admission. The blood arsenic was .006 mg. on admission and remained low throughout his stay, although the urinary arsenic on two occasions exceeded one mg., and a skin specimen from an area of dermatitis on the thigh showed 1.14 mg. arsenic. As the patient had already had six injections of sodium thiosulphate from a private physician before coming to the clinic, his comparatively low blood arsenic may have been due to recent elimination of the metal.

The amounts of arsenic found in the blood of a number of patients with miscellaneous diseases may be seen from Table Several of these cases merit brief discussion.

Case 15. Mrs. A.L., fifty-five years of age, came to me on November 8, 1928, complaining of painful mouth ulcers of a little over a year's duration. Over the mucous membrane of each cheek were two eroded areas one by one and one-half inches, covered with a thin grayish slough. The borders were red, and extending away from these were white linear areas. The soreness would disappear and recur but the white areas always remained. The general physical examination was negative. The blood chemistry was normal, the blood Wassermann negative. The blood arsenic was 1.61 mg.

The ulcers were at first attributed to phenolphthalein, as the patient had been taking phenolax for constipation. However, when this was stopped there was no improvement in the mouth condition, and skin tests with phenolphthalein were negative. In view of these facts and the high blood arsenic, the patient was then given sodium thiosulphate, both intravenously and by mouth. The ulceration healed, and had not recurred in three years observation. Two blood analyses following the sodium thiosulphate therapy showed 1.0 mg. and .148 mg. arsenic respectively.

In contrast to this case was another (Case 35) likewise with recurring blisters and sore areas of the gums and mucous membranes of the mouth. This patient, otherwise healthy, was a woman of forty-eight, who had a blood arsenic of .79 mg. She admitted taking laxatives and gave a strongly positive reaction to a skin test for phenolphthalein, and the lesions healed when the phenolphthalein laxatives were discontinued.

Among the more puzzling cases were two with symptoms suggestive of Raynaud's disease:

Case 24. Mrs. D.P., forty-three years of age, first consulted me on July 31, 1933 for a red vesicular, swollen and intensely pruritic condition of the feet and hands, extending to the knees and elbows. There was much oozing, crusting and excoriation. addition, the feet and hands were blue and cold, and several toes had been amputated on account of gangrene. A blood specimen taken at the first visit showed .285 mg. Under treatment with calcium thiosulphate, both by injection and by mouth, and local applications, the dermatitis cleared up entirely; but after treatment was discontinued for a few weeks, the trouble would recur. On one of these occasions a blood sample was found to contain .22 mg. arsenic. The Raynaud symptoms re-The patient denied ever having mained. taken arsenic.

Case 91. Mrs. L.M.G., aged thirty-eight years, came to me on February 16, 1935 for several pea-sized senile keratoses on her upper lip and forehead, acne of the nose and chin, and a condition of the hands and feet resembling Raynaud's disease. The latter had come on in the form of prickling and tingling sensations, alternating with

numbness. Under the influence of cold there was complete loss of sensation in the hands and feet and the parts would become alternately white and blue. Warmth produced redness and profuse perspiration. A change of two degrees in temperature sufficed to bring about a reaction.

The patient gave a history of having taken Fowler's solution for chorea at the age of twelve, and eight to ten injections of cacodylate of soda for a "run down condition" in 1925. Arsenic in the blood was reported by our laboratory to be .07 mg. After three intravenous injections of sodium thiosulphate, and sodium thiosulphate by mouth, the blood arsenic was .06 and the patient showed both subjective and objective improvement. She is still under treatment.

Both Osler and Pusey, among others, have considered arsenic poisoning in connection with erythromelalgia and the closely related Raynaud syndrome. Characteristic symptoms were noted in some of the severer cases of arsenic poisoning in the Manchester epidemic, in which they were associated with a peripheral neuritis. Putnam's collection⁸ of twenty-five cases of chronic poisoning from arsenical wallpaper and fabrics includes one with Raynaud-like symptoms which passed away after the removal of the arsenical paper. More recently Kraetzer³² has reported a case of Raynaud's disease associated with chronic retention of arsenic.

In addition to these more conspicuous symptoms already discussed-eruptions, falling hair, pigmentations (both melanoderma and jaundice), keratoses, polyneuritis, and occasionally the Raynaud syndrome—there are milder, premonitory symptoms often helpful in diagnosis in connection with other factors: (1) a garlic odor of breath or perspiration; (2) excessive salivation and sweating; (3) stomatitis (occasionally the sole symptom preceding a universal dermatitis); (4) generalized itching without objective symptoms, sometimes met with as the precursor of a dermatitis and of jaundice from liver impairment; (5) the "cold" involving sore throat, coryza and lacrimation, simulating the onset of influenza, but usually without a rise in temperature; (6) and the numbness, burning and tingling sensations which may herald a polyneuritis or a Raynaud syndrome.

There is also one class of reactions to arsenicals which deserves special mention, namely, those sometimes occurring after

intravenous administration of arsphenamines in the treatment of syphilis Most of these reactions occur either during or immediately following the injection, or at a short enough interval so that there is little difficulty in establishing the causal Chief among these are the relationship so-called nitritoid crises, and skin cruptions which range all the way from a striking but transitory erythematous rash to a severe exfoliative dermatitis, with generalized oozing, crusting, and grave constitutional symptoms Slower in onset are the symptoms of liver impairment, heralded by jaundice of various grades, and sometimes ending fatally in acute yellow atrophy Severe neuritis and nephritis are fortunately still rarer although mild manifestations of both are not uncommon after one or more courses of an arsphenamine preparation

These reactions do not properly constitute a part of the present study, except in so far as they must be reckoned with in fitting together the various links in the chain of evidence for or against arsenic, out of the patient's past history times a patient appears with a trouble some "eczema" that defies the usual treat-He denies ever having had syphilis. but admits that his present trouble started when he "broke out with a rash after a few arm injections from a private doctor ' His Wasserman is found to be strongly positive, an inquiry addressed to the doctor in question reveals that the patient received five or six intravenous injections of neoarsphenamine, but failed to return for the balance of the course "eczema" is an arsphenamine dermatitis which clears up under appropriate

treatment

Sources of Chronic Arsenical Poisoning

It will have been apparent from the foregoing instances that our efforts to determine the source of the arsenic revealed by our Inhoratory analyses were not uniformly successful. Simplest, of course were the cases in which there was a definite history of arsenical medication preceding the onset of the dermatosis. These cases were relatively few. More numerous were those in which the dermatosis antedated the medication, which had only aggravated it. Still more numerous, and

of greater significance for our purpose, were those cases in which the patient had not, to his knowledge, taken any preparation containing arseme

Inquiry into the occupations of this latter group revealed various opportunities for contact with arsenicals. One patient, it will be recalled, was a fruit-grower, another was a grocer, another a fruit peddler, all three had exceptional opportunities for handling and eating sprayed fruits, and in the one case, preparing the Three physicians arsenical sprays nurse, and a manufacturer of cosmetics handled arsenicals in the course of their work One patient, a candy-maker, was unable or unwilling to supply any direct information, but arsenic has been found quite regularly as an impurity in commercial glucose, used largely in the cheaper grades of candies It occurs in shellac used as a coating for candies, and in many of the colored papers used as wrappers for candies Two patients were furriers Furriers are exposed by the handling of skins treated with arsenical disinfectants and sometimes by the presence of arsenic in the dyes. Twelve case histories revealed contacts with paints, colored wall papers, and household insecticides. Of these patients, four were painters (house painters or sign painters), two were wife and daughter of a painter who kept his materials at home. two were artists, and one an interior In the three remaining instances either the original ailment or a recurrence had followed the repainting or repapering of the patient's apartment One of these, a dermatitis patient, reported that she was free from manifestations while away from home for two weeks, but immediately upon her return suffered a recurrence of her "eczema" This patient and several others reported that their itching was much more troublesome after the use of insecticides in their apartments. The artists and the interior decorator would of course have ample opportunities to come in contact with paints and dyed fabrics. Some artists have a habit of pointing the brush in their mouths

Arsenic in fabrics and wall-coverings Arsenical poisoning in industrial workers from paints, enamels, metals and their byproducts has long been a matter of common knowledge. It is less generally known, however, that arsenic present in colored wallpapers, wall-paints and hangings, and household objects may be toxic for the occupants of rooms containing such furnishings. Petren, after exhaustive study undertaken at the behest of the Swedish Government, came to the conclusion that both wallpaper and wallcontaining arsenic may cause poisoning in occupants of rooms, as may also dyed bed and mattress coverings, upholstery, curtains, stuffed birds, lampshades, and clothing. As for the United States, following an investigation of poisoning cases in Massachusetts around 1900, in which surprisingly large amounts of arsenic were found in wall-coverings, carpets, furs and fabrics, a state law was passed limiting the amount of arsenic to .01 grain per square yard for dress fabrics, and .1 grain per square yard for other materials. There is, however, no federal law regulating poisonous substances used in manufactured products, and so far as the author has been able to discover, Massachusetts is still the only state in the Union which places any legal limit on arsenic in wall-coverings and fabrics.

Many current writers, among them toxicologists of repute, dismiss this hazard with the comment that arsenical dyes are no longer used, having been supplanted by vegetable or aniline colors. But Kober¹⁰ admits that stockings, gloves, etc., dyed with aniline colors often do produce severe irritation of the skin on account of the presence of arsenic (used in flixing certain colors) which should not pass over into the finished product if the process is rightly carried out. There is furthermore the possibility of arsenic being carried along from the raw product into the finished goods, irrespective of the dye used, because of the use of arsenical sheep dips and the dusting of growing cotton with arsenical sprays. Myers and his co-workers11 report considerable amounts of arsenic both in cotton and in finished cotton goods, while analyses\s made by the United States Bureau of of hemistry12 since the passage of the Massalachusetts law have also disclosed excel sive amounts of arsenic in "entirely too on large a percentage of furs and dress good is on the market." One may well wonder whether we are not taking too much for granted in assuming that our colored fabrics are arsenic-free.

Arsenic in Foods. The experiences of three of our patients in eating sprayed fruit have already been described. Unfortunately in cases of suspected poisoning it is not always possible to identify the offending substance, even when circumstances point strongly to arsenic. In a series of cases communicated to me personally by Dr. George H. Roth¹³ of the Los Angeles County Department of Health, it was possible to trace the patients' symptoms to their source.

During the summer of 1933 physicians of Los Angeles and vicinity were called to attend a surprisingly large number of persons suffering from acute gastroenteritis, chiefly in the form of vomiting, diarrhea, and abdominal cramps. In some cases there was also fever up to 102° F.; in several there were bloody urine, stools, and/or vomitus, cold sweats, thready pulse, and great prostration. Thanks to an active local Department, these cases promptly investigated. Thirty in one locality were traced to a Sunday meal in which cole slaw was served to all. secured from the same lot from which the slaw was made, showed by analysis .354 grains of arsenic trioxide per pound, or more than thirty-five times the limit of safety fixed by the United States Government. One child from a neighboring town had been stricken with vomiting, cramps, diarrhea, and prostration after eating an unwashed and unpeeled pear. Three other children who had eaten washed pears of the same lot were not ill. Analysis of unwashed pears from this lot showed .538 grains of arsenic trioxide per pound, or nearly fifty-four times the limit of safety. In addition to cabbage and pears, arsenic was found also on celery, broccoli, and spinach from various markets in the vicin-One patient was seized with severe vomiting which lasted for several hours, after eating a single stalk of celery. An elderly woman whose supper had consisted entirely of boiled spinach was awakened early the next morning by vomiting, diarrhea, and cold sweats. Urine, feces, and vomitus from these and other cases investigated by the County Board of Health yielded arsenic in significant amounts. should be decidedly worth while to keep these patients under observation for evidences of chronic retention of arsenic.

In the above instances, cooperation of the physician with the County health authorities, and the energetic measures of

the latter, solved the immediate problem at its source The clinic patient, however, attending for his chronic ailment, is rarely if ever seen in the acute phase by the same physician, but careful questioning will often elicit a history of "bad stomach upsets after eating greens," or "Can't eat salads—they give me cramps" Not all the cases popularly reported as "ptomaine poisoning" are caused by the As in the California cases, ptomaines it is not unreasonable to suppose that for the comparatively few persons who happen to eat freely of one lot of funts or vegetables containing a spray residue high enough in arsenic content to cause acute manifestations, there must be many more who escape with symptoms too mild to enlist medical aid at the time, yet increasingly dangerous when the cause is not removed

This, unfortunately, is a hazard to which we are all exposed, sooner or later It is easy to dismiss the idea with the facetious comment of the trade journals that it would be necessary to eat three bushels of apples at a sitting in order to get a minimal dose of arsenic in the form of spray residue The matter is not quite so simple Arsenic has been found by reputable investigators, not alone in fruits and vegetables, but in practically every item of the human dietary. The United States Food and Drug Administration, in the course of a nation-wide survey of the arsenic content of practically all classes of food, found in 129 out of 1169 (1 out of every 9) samples analyzed, arsenic trioxide in excess of 01 grain per pound, the so called world tolerance Tish and other marine products are particularly high in natural arsenic. It is not impossible that the intolerance of many persons to fish and shellfish bears a relation to their arsenic content Two of our patients with fairly high amounts of arsenic in the blood, reported urticaria after eating lobster Another, with lichen planus and keratosis of the palms and soles (blood arsenic 16 and urinary arsenic up to 136 mg) complained that his rash was always worse after eating fish

In order to satisfy our curiosity as to the amount of arsenic which a person might take into the system in a day, on an ordinary diet, we made out the accompanying menus, on which have been listed the amounts of arsenic found by various investigators in samples of the food in Of two or more analyses reported on the same food, we have usually, although not always, cited the higher, but we have not cited figures representing exceptional conditions, for example, fruit purposely oversprayed for experimental put poses According to the authors' descriptions, the original samples were either bought on the open market, or were taken, in the case of some fruits and vegetables, from orchards, truck gardens, or interstate shipments of commercial growers, consequently they represent foods which would normally find their way, under present-day conditions to the table of the consumer The fact oi dinary amounts up to and in many instances exceeding these have been found by competent investigators in such a variety of foods in common use, means that the mystery of arsenic findings in patients without any history of arsenical medication ceases to be a mystery The total amount of metallic arsenic for the three sample meals would be more than ten times the amount contrined in a maximum duly dose of Fowler's solution as prescribed by the present writer (allowing five drops three times a day, of a one per cent solution of potassium arsenite)

If it be contended that in any such aibitrary selection and arrangement of foods as the present one, amounts much greater than "average" are represented, and that no person would be likely to hit upon this particular aggregation of arsenical foodstuffs in a day, it can be claimed with equal propriety that he might easily happen upon a still larger total The cabbage on the luncheon menu, for instance, high as it is in arsenic, contains only one fifteenth of the amount of arsenic found by the Baltimore City Health Departmet in one sample of cabbage already on the market The cauliflower, another "high," represents an interstate shipment seized by Federal inspectors for excessive residues of arsenic and lead This would be reassuring if we could be certain that all such lots were seized before reaching the market The strawberries and blueberries reported here were admittedly sprayed shortly before picking, and no rain had fallen in the meantime have no assurance, however, that this

does not hold true of many lots of berries which reach the public markets. will be said that washing and peeling removes most of the poison, but not all fruits and vegetables can be peeled-disregarding the loss of vitamins when they are—and that part of the public obliged to eat in public eating places has nothing to say about the washing of its food. Those who wash their own must reckon further with the fact that many arsenical sprays contain less than one per cent of arsenic in water-soluble form (sometimes not more than one-half of one per cent). Commercial growers are learning to use hydrochloric acid and degumming agents to partially remove these residues before shipping their products. This is impracticable for the small grower and for the ordinary consumer.

If the average citizen wishes to go in wholeheartedly for an arsenical diet, he has made only a good beginning on his regular meals. If he enjoys an occasional glass of wine, he may find arsenic up to two mg. per liter in samples analyzed by Berg and Schmechel, 15 to choose a recent report from numbers available in the literature. Three to twelve mg, per liter were found in the wine responsible for the poisoning of French sailors occurring If one would drink an extra glass or two of milk, .15 to .19 parts per million may be added in this way. 16 Codliver oil contains, according to Sadolin,17 3.9 parts per million arsenic, or up to 5.1 parts per million, according to Holmes and Remington.18 One may easily get .5 mg. metallic arsenic from a single apple,

if one credits the statements of Lynch,19 who performed thousands of painstaking analyses for the United States Department of Agriculture. A single pear containing the amounts found by the Los Angeles County Board of Health in some of their samples, would supply 6.5 mg, metallic arsenic. If the consumer smokes, he probably inhales, in which case the smoking of 2.6 ounces of pipe tobacco would give him as much arsenic as the law permits in one pound of food. This is based on the average findings of Gross and Nelson.20 Individual samples ran considerably higher; cigars and cigarettes averaged slightly lower than pipe tobacco.

We take for granted that our drinking water is free from arsenic, vet arsenic has been demonstrated in the water of many European city systems, and in this country Shelden²¹ has traced a case of multiple neuritis to arsenic in drinking water from the faucet (2.5 mg. arsenic per liter). Ayres²² found the equivalent of 3.33 mg, metallic arsenic per liter in wellwater used by a woman who presented almost every known symptom of arsenical This same writer within the poisoning. past year reports that a questionnaire sent to the Department of Health in every state in the Union brought replies from forty-four states admitting that no routine tests had been made for arsenic in drinking water. In Illinois the aluminum sulphate used for purification of the water contains one to three parts per million arsenic. An inquiry addressed by me to the New York City Bureau of Water Supply brought the information that their

BREAKFAST MENU

	a Amount of arsenic found in original sample	b Reported by	One adult portion	Estimated metallic arsenic per portion	Remarks
Fruit Grapes	7.10 p. p. m. metallic arsenic in fresh fruit	Lynch U. S. Dept. of Agriculture	150 gm. fresh	1.0650 mg.	
Cereal Oatmeal	0.11 mg. metallic arsenic per 100 gm. dry	Bang	35 gm. dry	0.0385 mg.	
Toast	0.03 mg.* metallic arsenic per 100 gm. dry	Bang	54 gm. dry	0.0162 mg.	*Bang's average for flour up to 0.05 mg. was found in rye flour
Eggs	9.2 p. p. m. metallic arsenic (yolks only)	Carey, Blodgett and Saterlee	39 gm.* dry	0.3588 mg.	*Two yolks only
Coffee	1.3 p. p. m. metallic arsenic dry	Carey, Blodgett and Saterlee	23.4 gm.* dry	0.0304 mg.	*Amount for one cup
	Total			1 5089 mg	

a For choice of original figures, see text of article. b References given in full (See page 240)

LUNCHEON MENU

	Amount of arsenic found in original sample	Reported by	One adult portson	Estimated metallic arsenic per portson	Remarks
Consomme Celery and Olives	0 209 gr As ₂ O ₃ per lb fresh 0 000*	White Myers	(0 gm fresh	1 3581 mg	*0 15 mg metallic As per 100 gm dry specimen was found in the liquid
Olives	0 000	Milera			from one sample
Lobster	110 p p m As ₂ O ₂ (resh*	Chapman ³⁹	57 gm fresh	4 7464 mg	*Edible portion only
Escalloped eggplant*	0 231 mg metallic arsenic per 100 gm dry	My ers	125 gm * fresh 7 45% solids	0 0215 mg	*Eggplant only arsenic in other ingredients not estimated
Rolls	0 03 mg metallic arsenic per 100 gm dry	Bang	52 gm * dry	0 0156 mg	*Two folls
Salad					
Lettuce	0 0454 mg metallic arsenic per 100 gm dry	M3 ers	57 gm fresh 4 2% solids	0 0109 mg	
Cabbage	1 6 gr AnOs per lb fresh	Wharton** U S Dept of Agriculture	88 gm fresh	15 2486 mg	
Green pepper	0 121 mg metallic arsenic per 100 gm dry	Myers	11 gm fresh 4 63% solids	0 0006 mg	
Cocoa	36 p p m metallic arsenic dry	Carey Blodgett and Saterlee	10 gm *	0 0360 mg	*For one cup
Strawberries	34 2 mg As ₂ O ₁ per quart fresh	O Kane Hadley and Osgood ¹¹ N H Dept of Agriculture	1/4 quart	6 4724 mg	
	Total			27 9101 mg	

DINNER MENU

					
	Amount of arsenic found in original sample	Reported by	One adult portion	Esismated metallic arsense per portson	Remarks
Oyster Cocktail*	70 p p m As ₁ O ₂	Chapman	76 gm fresh	4 0°72 mg	*Oysters only, other in gredients not estimated
Fish Filet of sole	10 p p m As ₁ O ₄	Chapman	125 gm fresh	0 9463 mg	
Meat Beel steak with	0 00 mg metallic arsenic per 100 km fresh	Bang	220 gm fresh	0 1320 mg	
Mushrooms	0 15 mg metallic arsenie per 100 gm dry	Myers	57 gm fresh 7 05% solids	0 0060 mg	
Baked potato	0 009 mg metall c arsenic per 100 gm dry	Myers	305 gm * fresh 21 9% solids	0 0060 mg	*Including skin since this may be eaten
Cauliflower	1 602 gr As ₇ O ₂	White	97 gm fresh	16 8295 mg	
Waldorf Salad Apple	5 50 p p m metallic arsenic fresh	Lynch U S Dept of Agriculture	63 gm * fresh	0 3493 mg	*One-half apple
Celery	0 209 gr As ₂ O ₄ per lb fresh	White	30 gm * fresh	0 6791 mg	*One-half regular portion
Nuts Lettuce	0 454 mg metallic arsenic per 100 gm dry	Myers	57 gm fresh 4 2% solids	0 0109 mg	
Blueberry Pie	0 52 gr As ₂ O ₄ per lb in fresh berries	Bartlett Maine Dept of Agriculture	14 lb fresh	6 3967 mg	
Coffee	13 p p m metallic arsenic dry	Carey Blodgett and Saterlee	23 4 gm * dry	0 0304 mg	*Amount for one cup
	Total			29 4134 mg	

laboratories had never tested the water for arsenic, but that the report from a recent spectrographic analysis had not mentioned the presence of arsenic. The danger of contamination is greatest in mining and smelting areas, but since arsenical sprays are used on the watersheds supplying most city systems, it would seem highly desirable to have periodic examinations made.

By this time the discouraged consumer is likely to inquire whether we do not take in arsenic with the air we breathe. The answer, unfortunately, is "yes," for arsenic occurs as an impurity in coal, and hence in smoke and soot, which account for most of the arsenic reported by various investigators in atmospheric dust. Limitations of space preclude touching upon innumerable substances in which arsenic occurs, either as an essential constituent or as an impurity carried along in some commercial process unfamiliar to the average user.

Comments

Significance of the form and mode of intake of arsenic. It is not the purpose of this paper to arouse exaggerated fears in regard to arsenic. The cases already cited in which arsenic was at first suspected but the real cause of the trouble was found to lie elsewhere, should show the necessity for a healthy skepti-Furthermore, the toxicity of arsenic varies to a considerable extent with its form and mode of intake. The work of the Swedish Commission indicates that surprisingly large amounts of arsenic can be ingested, especially with fish and other marine products, without at least producing immediate ill-effects. The explanation of this probably lies largely in the individual's ability to excrete the arsenic before it can be stored up in the system, and this would depend partly on the functioning of the excretory apparatus and partly on the form in which the arsenic Bang's²³ studies suggest is combined. that organically combined arsenic is eliminated more rapidly and with less danger to the organism than arsenic in inorganic The fact that most of the arsenic contained in spray mixtures is in insoluble form undoubtedly explains why there are not more universal epidemics of acute poisoning from this source. The changes undergone by arsenic once it is taken into the digestive tract are still largely a matter of conjecture.

Also the physical state of the arsenic is an important consideration, and is closely linked to the question of habituation. The ability of arsenic eaters to consume amounts ordinarily fatal (up to 51/2 grains of white arsenic, according to Schäfer) without apparent ill-effects are in all probability due, not to habituation to the drug as has been commonly assumed, but to the eating of the dry powder or crystals in fairly coarse particles. Such an amount, if it dissolved at all rapidly, would probably constitute an oral lethal dose for a man, but its actual toxicity cannot be stated, where the degree of fineness is unknown. Schwartze's experiments on animals showed an enormous difference in toxic effects, depending on whether the arsenic trioxide was administered in soluble form, in powder, in fine or in coarse crystals. The finer the state of sub-division the more toxic the preparation proved; the lethal and emetic doses of the coarsely divided arsenic were often many times the corresponding doses of the finely divided and dissolved forms. Up to ninety-five per cent of the solid arsenic trioxide could be recovered from the feces, while the dissolved arsenic was eliminated through the urine. Schwartze's²⁴ analysis of the literature on the subject disclosed a lack of conclusive evidence that any noteworthy degree of habituation to dissolved arsenic trioxide has ever been attained.

Another angle of the same problem was investigated by Morishima²⁵ who wished to verify the claims of Besredka that he had succeeded in immunizing against lethal doses of arsenic, and that the serum of immunized animals contained an "antiarsenine." Morishima, on the contrary, found that neither a small preliminary dose given twenty-four hours before the lethal dose, nor fractioning the lethal dose in four parts given every three to four hours, nor small doses gradually increased over a period of four months, produced any appreciable immunity.

The effects of arsenic also vary somewhat depending on whether it is ingested, inhaled, or absorbed through the external skin. But by any and all routes, it seems to be capable of producing systemic poi-

soning as well as local symptoms. Many cases of poisoning by inhalation of arseniuretted hydrogen have occurred among chemists and industrial workers. The hemolytic effects of the gas usually predominate over other symptoms, resulting in hematuria or hemoglobinuria, with strangury and in severe cases, complete anuria, also jaundice of an intense coppery hue. In one case communicated to me personally by Dr. Roth, of Los Angeles, a healthy young man who worked for eleven hours spraying with the arsenical mixture "KMG" (Kills Morning Glories) and inhaling the spray as he worked, began to pass bloody urine within a few hours after he stopped work. It was not until several hours after this that he was seized with nausca, profuse vomiting, and watery diarrhea. stools and vomitus were also bloody. Arsenic was demonstrated in the urine. The patient recovered. In some trades where workers inhale dust contaminated with arsenic, nose and throat symptoms are characteristic, often leading to ulceration and perforation of the nasal septum which have been mistaken for syphilis.

What is "normal" arsenic? On this hinges the interpretation of arsenical findings in pathological conditions. One should be cautious in accepting any standard quoted as "normal" without knowing the author's use of the term. It has been used by many in the medicolegal sense to apply to arsenic which may have been taken into the system by any means other than criminal or accidental poisoning. In this sense, arsenic derived from medication would be "normal" arsenic. We restrict the term here to that found in healthy persons without history of arsenical medication or any other known source of intake. This phase of our work is still in progress, but figures are available on a limited number of cases.

In twenty blood samples taken from sixteen healthy children between the ages of two and fourteen years, we found an average of .0529 mg. arsenic per 100 gm. of dry specimen. The individual specimens ranged from .000 to .15 mg. We also took samples of blood from fifty-five young healthy adults recently infected with syphilis but as yet untreated. So far as could be ascertained, these patients had never taken arsenic in any form. Their blood averaged .2598 mg. Six had none or a trace only; sixteen had

less than .1 mg.; twenty-eight had .1 mg. to .9 mg.; and three had more than 1.0 mg. The average for the adult group is five times as great as that of the children's group. This suggests cumulative properties and is in line with the findings of Billeter and Marfurt.20 who reported that in the organs and tissues from seventeen cadavers ranging in age from newborn to seventy years, all without history of arsenical medication, arsenic was found in all, in amounts increasing with age. If we put together our seventy-one normal persons of all ages, we would have an average of .2046 mg. arsenic derived solely from incidental sources.

The average amount of arsenic found in the uring of the group of normal children was .130 mg, per liter (21 specimens from 16 children). Analyses are not yet com-pleted for the urines of normal adults, and were available on only a part of the patients with the various dermatoses already discussed. Ideally one would wish systematic examinations of both blood and urine from each patient, but where this taxes too beavily the laboratory facilities, we believe that the blood arsenic provides a better index of tolerance for the arsenicals than the urinary arsenic alone. A low urinary arsenic may mean poor excretion, rather than a minimal intake, while a high urinary arsenic, in our experience, usually paralleled a low blood figure, and represented some measure of the patient's ability to eliminate the poison, once it has been taken into the

system.

When the figures for "normals" are compared with those found in patients with the various pathologic conditions already examined, it is evident that the "normals" average considerably less even than the patients with the milder dermatoses such as acne and vitiligo, and very much less than those with more serious skin ailments. On the other hand there are individuals in the normal group showing a much higher amount of arsenic in the blood than some patients with pathologic conditions. This factor of individual tolerance must be reckoned with. It occasionally happens that of two persons living under identical conditions, one will show considerable amounts of arsenic in blood or urine and yet be free from symptoms, while the other, with lesser amounts of arsenic will display symptoms of poisoning. One may see from Table II what differences exist among members of one family, on the occasions when analyses were made of the blood of two or more members on the same day.

All this is not so surprising when one

remembers that the effects of arsenical poisoning may be indirect. Most or all of the arsenic may have time to be eliminated, but the pathologic changes wrought in the liver and other organs persist, as alcoholic cirrhosis of the liver or kidney may cause death long after the ingestion of alcohol has ceased. Vogel's27 studies indicate that the liver can take up large amounts of arsenic without giving rise to any clinical signs, until some intercurrent disease suddenly brings on symptoms of poisoning. Something of this sort may account for the cases of dermatitis or "eczema" which appear to be brought on by contact with sundry banal substances hitherto tolerated, when the blood examination reveals a retention of arsenic.

Another factor not always taken into apparently negligible account is the amount of arsenic which suffices to bring on a recurrence of symptoms in a person once poisoned. Among the poisoning cases reported by Althausen and Gunther29 patient recovering after a months' hospitalization for an arsenical neuritis with partial paralysis, suffered a sudden temporary relapse characterized by nausea, abdominal pain, general muscular tenderness and stiffness in the extremities, immediately after eating some cookies sent him from home. Analysis of the remaining cookies showed .0015 mg. arsenic per 100 gm. It is inconceivable that a healthy person should be affected by so small an amount, yet in a person already poisoned it seems to have called forth a reaction of sensitization. One of our patients who had suffered repeated recurrences of poisoning symptoms traced to the eating of sprayed fruit, reported an acute gastrointestinal upset after drinking pineapple juice, although he had previously taken it without ill effects. A sample of the same brand analyzed in our laboratory showed .0047 mg. arsenic in sixteen ounces of the juice.

It is only after observing the problem from these various angles that one grows less inclined to ignore the occurrence of even relatively small amounts of arsenic either in foods or in the body fluids. From a superficial examination of our findings in normal persons, one could of course conclude that amounts up to or even (in a few cases) exceeding 1.0 mg. arsenic may

be present in the blood without causing any damage. The question is: how much arsenic is already being stored up in the body (we have mentioned evidence of its cumulative properties), and how long will this particular individual be able to retain so much arsenic before clinical evidence of poisoning appears? It seems probable that the arsenic taken in from foods, etc., —at least that portion not immediately eliminated—accumulates gradually in internal organs, whence a portion is set free from time to time into the blood stream, a portion only being eliminated. In our patients with dermatoses and a low blood arsenic on admission, it was noticed that sodium-or calcium thiosulphate therapy was almost invariably followed by a temporary rise in both blood and urine arsenic, suggesting mobilization of the metal from internal storage depots, and an attempt to excrete it. The more active the urinary excretion, the more rapidly the blood figure was observed to decline. Of the comparatively few patients whose first blood or urine specimen was reported free from arsenic, every single one showed some arsenic in blood or urine on subsequent occasions, except one patient with acne who lapsed before a second specimen could be taken.

Obviously, there is no such thing as "normal" arsenic in the sense that one uses "normal" for essential constituents of the blood or body tissues. As a foreign element, arsenic is tolerated in varying degrees depending on a concurrence of Chief of these in the light of our present knowledge, appear to be (1) the physical and chemical state of the arsenic ingested, absorbed or inhaled; (2) the ability of the organism to maintain an equilibrium between storage and excretion; and (3) individual differences. either constitutional or acquired, which may render an organism highly susceptible locally at certain times to amounts hitherto tolerated.

Practical Suggestions

Perhaps out of the foregoing one may venture to emphasize a few practical considerations in regard to chronic poisoning by arsenic:

1. Even the most typical symptoms are easily mistaken for other conditions: the gastroenteritis of the acute stage has fre-

quently passed for ptomaine poisoning, the nose and throat symptoms for influenza and syphilis; the pigmentation has been mistaken for Addison's disease, and the cutaneous eruptions for everything from measles to erysipelas. It is not difficult to believe the story that in former times the faithless and designing spouse would dip her husband's shirt in an arsenical solution; the result would be a rash simulating a syphilitic eruption and thus suggesting marital inconstancy on his part. In short, since almost every known type of cutaneous eruption has been observed in connection with arsenical poisoning, and since there is furthermore the possibility that many conditions not generally attributed to arsenic may owe their inception to it, either directly or indirectly, we believe that every eruption or pigmentary disturbance that cannot be definitely identified by supporting evidence as due to other causes, should be open to suspicion as a manifestation of arsenical poisoning. With this attitude, the physician is less likely to make the all too common mistake of prescribing arsenic for a condition which may owe its inception to that very substance.

Concerning opportunities for the intake of arsenic, although it is the part of wisdom to attempt to seek out a definite source, in view of the widespread occurrence of arsenic in foods and other substances in everyday use, one should not dismiss the possibility of arsenical poisoning merely because one fails to establish a history of arsenical medication or of exposure to some other known source. Under our present day living conditions it would be infinitely more difficult to prove that a patient has not been exposed to arsenic. Analyses of foods-especially fresh fruits and vegetables, hair tonics, etc .- may furnish valuable evidence. careful study of the patient's habits and environment will often be necessary in order to establish the chronology of exposure and onset, exacerbation or regression of symptoms.

3. The examination of blood and urine for arsenic is important not only to establish a diagnosis in a particular case, but also to help in building up a more comprehensive body of knowledge concerning the fate of arsenic in the human system, and what, if any, may be considered the limits of "normal' arsenic. While there are comparatively simple qualitative tests for arsenic which can be carried out by the physician himself or by a lay assistant, it is better to send the specimens to a laboratory for a quantitative determination. Many reports in the literature are of doubtful value because of inadequate data as to the quantity of arsenic found, or the method used to determine it.

4. In examining for other causes of the dermatosis or other ailment in question, we always take one or more Wassermann tests to exclude syphilis (only one patient in our entire series showed a frankly positive Wassermann). Patch tests are done with drugs and external irritants, and patients suspected of food idiosyncrasies are examined in the Allergy clinic. Repeated examinations for fungi are done in doubtful cases. When the patient gives a history of employment in any industry or occupation which might expose him to any particular hazard, such as lead poisoning, this angle is always investigated. In a number of our cases the urine was examined for lead as well as arsenic, but in only one case was lead found in any considerable quantity, and in this case the arsenic far exceeded the lead, while typical symptoms of lead poisoning were lacking. This needs to be taken into consideration both in connection with paints, and with fruit sprays, where lead-arsenate is the preparation of choice, and the lead residue may exceed the arsenical.

Treatment with sodium—or calcium thiosulphate, either by injection or by mouth, or both, hastens the excretion of such arsenic as may be stored up in the system, and is the remedy of choice in the present state of our knowledge. regularly observed a rise in blood and urine arsenic immediately after beginning treatment, to be followed shortly by a gradual but steady decline as the treatment was continued. Local applications and light treatments can of course be used to supplement this for certain skin conditions, although we frequently saw marked improvement follow the use of sodiumor calcium thiosulphate alone.

 Finally, we would emphasize our belief that the effects of arsenic as observed in the majority of cases of chronic poisoning are due not to the arsenic derived from any single source, but from the combined effects of arsenic taken in from a multiplicity of sources and in a great variety of forms. Under presentday living conditions it is probably impossible to remove a patient from all contacts with arsenic.

Summary and Conclusions

- 1. A series of 107 patients with a variety of symptoms was investigated from the point of view of possible arsenical poisoning; seventy-one healthy persons were used as controls, and comparative studies of the blood and urine of both groups were made for retention of arsenic.
- 2. The cutaneous manifestations and other associated symptoms were compared with those observed in known cases of arsenical poisoning, and evidence is also presented that some conditions not generally attributed to arsenic may be caused or aggravated by its retention in the system.

- 3. Attempts to trace the sources of this arsenic have been described, and results of numerous investigations of foods, wallpapers and other substances in common use summarized from both published and unpublished data.
- 4. Typical case histories have been given in brief, showing that removal of the source and/or treatment designed to hasten the elimination of arsenic were followed in many instances by clinical improvement or cure, and that this improvement usually paralleled a reduction of arsenic in the blood. Re-exposure to arsenic was followed by recurrence of symptoms and a rise in blood arsenic.
- 5. The question of "normal arsenic" has been discussed, and some practical suggestions are offered for the guidance of the general practitioner and with a view to stimulating further research.

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NEBRASKA'S "AIRPLANE DOCTOR"

Dr Frank A Brewster, of Holdrege, Nebraska the "urplane doctor," has flown more than a million miles in looking after the needs of the people he serves in Repub lican Valley in southern Nebraska and northern Kansas He specializes in surgery, operates duly in two hospitals which are almost 150 miles apart as the highways twist and turn, and draws his patients from a territory that covers about 25,000 square miles

He supports two hospitals, three airplanes and an airport All the money that comes in to him goes right out into hospital and airplane equipment. The up-to diteness of his hospitals-one in Holdrege and the other in Oberlin Kansas-is his pride and joy He has no interests outside his profession, not even aviation, strange as it may seem This amizing country doctor, who has developed into a famous flying surgeon, looks upon the plane merely as a means to an end Tast transportation saves hours that mean lives

An amusing story in Dr Brewster's career, as told in The Sportsman Pilot, concerns one of his early pilots, Hodge Smith happened that now and then in an emer gency operation that had to be performed on the spot, Pilot Smith was called to help the doctor He developed, as Dr Brewster puts it, "quite a technique" Not only that, Smith became so interested in surgery that he gave up flying and took up medicine Today, Dr Brewster likes to relate with a deep chuckle, Pilot Smith is Dr J Hodge Smith of Mars, Pennsylvania

The relaxation Dr Brewster finds in the air is necessary to him, for the flying physician is a hard worker Winter and summer, rain or shine, he flies his 230 mile patrol between the hospitals at Oberlin and Holdrege Frequently, when emergency cases pile up thick and fast, he flies the stretch three times a day It is not unusual for him to fly to Oberlin at dawn, operate all morning, return to Holdrege, spend the afternoon in the operating room and fly back to Oberlin to attend another patient. He often goes on flights of mercy to the sick in other towns and out-lying Since most of the country is flat districts and hard, it is usually easy for him to find a landing place near the spot where a marker on a windmill or barn roof tells him he is needed

The American Medical Association has let a contract to remodel and modernize the headquarters buildings at 535 North Dearborn St, Chicago, and add two additional stories and a pent house auditorium

In Germany the buying and selling of medical practices is prohibited, but a certain amount by way of compensation for the delivery of a physician's leasehold and equipment including instruments, may be agreed on, in which transaction the local chairman of the Kassenarztliche Vereinigung must serve as an intermediary

Workers in hazardous occupations, those driving vehicles and elevators, working with moving machinery, and in plants where hazardous substances are used, need periodic a check up of the eyes. This involves more than one ordinary Snellen test. The mere fact that an employee had a pre employment examination does not preclude the necessity of re examining him from time to time

Pasteurization of certified milk results in a product that averages less than one hundred bacteria per cubic centimeter, accord ing to Dr M J Rosenau, president of the American Association of Medical Malk Commissions

The fourth annual George Washington University post-graduate clinic will be held this year on Saturday, February 29, at the University Hospital from 9 00 A M until 4 30 P M All physicians who are interested are cordially invited to attend the meetings

THE ASSOCIATION OF FRACTURES AND PAGET'S DISEASE (OSTEITIS DEFORMANS)

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In 1877, and again in 1882 and in 1889, Sir James Paget¹ wrote on "A Form of Chronic Inflammation of the Bones" which he called osteitis deformans, using a term which had been employed before that time to cover a variety of conditions. In all he studied twenty-three cases and gave the following classical description of the disease:

The disease begins in middle age or later, is very slow in progress, may continue for many years without influence on the general health, and give no other trouble than those which are due to the changes of shape, size, and direction of the diseased bones. Even when the skull is hugely thickened and all its bones exceedingly altered in structure, the mind remains unaffected. The disease affects most frequently the long bones of the lower extremities and the skull, and is usually symmetrical. The bones enlarge and soften, and those bearing weight yield and become unnaturally curved and misshapen. spine, whether by yielding to the weight of the overgrown skull, or by change in its own structure, may sink and seem to shorten with greatly increased dorsal and lumbar curves; the pelvis may become wide; the necks of the femora may become nearly horizontal; but the limbs, however misshapen, remain strong enough to support the trunk.

Describing his first case Paget wrote:
The shape and habitual posture of the patient were thus made strangely peculiar. His head was advanced and lowered so that the neck was very short, and the chin, when he held his head at ease, was more than an inch lower than the top of the sternum. The short narrow chest suddenly widened into a much shorter and broader abdomen, and the pelvis was wide and low. The arms appeared unnaturally long, and though the shoulders were very high, the hands hung down by the thighs and in front of them. Altogether the attitude in standing looked strangely in contrast with the large and handsome features.

Paget's disease existed in ancient times and in many races as a study of the skulls and bones collected in various archeological museums shows.² The name

"osteitis deformans" was used by Sir James Paget because the bones of his patients showed gross thickening, elongation, and deformity. This applies only to the advanced forms of the disease with involvement of many bones, but localized forms of involvement also occur without gross deformity, and many of these probably go unrecognized. Statistics as to the incidence of Paget's disease vary widely from approximately one in 40,000 among outpatients at the Massachusetts General Hospital³ to one in 3,000 among patients admitted to the Peter Bent Brigham Hospital, as reported by Bird who attributed his high incidence to the fact that eighty per cent of the patients had been examined radiographically. Hurwitz⁸ reported the incidence at the Johns Hopkins Hospital as one in 10,000. At the Albany Hospital the author found twenty-five cases among patients admitted during the last twelve years, an incidence of approximately one in 4,000. There were thirty-six other cases examined radiographically but not admitted making a total of sixty-one cases.

Schmorl⁶ found Paget's disease in three per cent of autopsies in patients past forty years of age (80 in males and 58 in females) and reported the following distribution in the bones of the 138 cases:

Sacrum 7		21
Vertebrae 6	9 Clavicle	
Skull 3	9 Ribs	10
Sternum 3:	2 Humerus	ě
Pelvis	0	

Jaffe² states, "it is not a rare occurrence to find roentgenologic evidences of quite unsuspected Paget's disease in the pelvis, for instance, of a patient who has vague symptoms of pain in the back. Such lesions have been known to show lack of any considerable progression when followed over a period of years." The longest duration of the disease which the author could find recorded was fifty-two years. The date of onset in these cases is necessarily approximate only, depending as it does on the patient's observation and on the severity

of his symptoms. Many writers state that the skull, the fibia, and the fenur are the bones most frequently involved, but this is probably not true in view of the studies made by Schmorl on the 138 cases that came to autopsy. It is now generally conceded that the earliest changes in Paget's disease are to be found in the spine and sacrum. It has been stated that the fibula is rarely if ever involved; however, I found it involved in two cases.

The onset of the disease is usually insidious. There may be vague pains in the back or extremities or local bone deformity such as enlargement of the skull or anterior bowing of one or both tibiae with or without pain. Indeed pain is a very variable symptom in Paget's disease. It is attributed by Elting' to distention or stretching of the periosteum, and he believes that the pains are most marked during the early stages of the disease. The absence of pain in certain instances he attributes to a slow development of the disease with less stretching of the periosteum. The eighth case reported on this continent was reported by him before the Albany County Medical Society in 1900 and published the following year in the Johns Hopkins Hospital Bulletin. With his permission I am including this case in my report. The joints are not directly involved in Paget's disease, but there may be some disability in the joints because of interference with motion due to thickening and deformity of the adjacent bones.9 Hence, these patients are clumsy and likely to fall. Arteriosclerosis is regularly found associated with the disease, but this may be a coincidence Heredity is a doubtful factor. Deafness is common due to pressure on the auditory nerve if the skull is involved, and it may be an early symptom.

The etiology of Paget's disease is still unknown, but it is hoped that the recent studies of the parathyroid glands and their relationship to the metabolism of calcium and phosphorus will throw some light on the subject. Parathyroids have been removed from patients with Paget's disease and improvement is said to occur, 10 but hyperparathyroidism has not been proven to be present. The levels of calcium and phosphorus in the blood are normal in Paget's disease, and there is no parathyroid hyperplasia. 11 For the present, it would seem wise to limit parathyroid sur-

gery to patients in whom hyperparathyroidism can be proven by adequate metabolic studies. In this regard it should be said that one must not put too much reliance on a single determination of blood calcium and phosphorus. It is now generally recognized that patients with osteitis fibrosa cystica, or von Recklinghausen's disease, are suffering from hyperparathyroidism and can be benefited by parathyroidectomy.

In the pathology of Paget's disease¹³ the characteristic change is enlargement of



Fig 1. Picture from Paget's original article published in 1877.

one or more bones with replacement of normal bone by bone of a spongy structure. The bone marrow later becomes fibrous and new bone is formed in the marrow spaces. There is first softening and then overgrowth of bone. In the long bones there is an increase in width and some increase in length as well. During the early stages the bones are soft and cut easily with a knife; it is at this stage that the deformities occur. Later there is a thick deposit of subperiosteal bone, and the surface of the bone becomes rough and irregular. The porous nature of the bone can best be demonstrated by pouring water into the thick skull cap, when it will be found to escape as through a sieve.14 In the radiographs are seen thickening of the cortex with enlargement and bowing of the long bones and a rearrangement of the trabeculae into strands or bundles running longitudinally. The new cortical bone may show multiple longitudinal cyst-like areas. The medulla also shows mottled areas of rarefaction which extend into the epiphysis. This involvement of the epiphysis is important in the differentiation from lues which rarely affects the epiphysis in the same manner. The skull changes are often most characteristic. We can visualize these best if we imagine that

the curled kinky hair of the negro has undergone calcification. 16

There are conflicting statements in the literature as to the incidence of fractures in Paget's disease and as to the effect of the disease on the healing of the fractures in involved bones and in uninvolved bones. Jaffe² believes fractures are not so rare as the literature seems to indicate and states:

The tibia and femur are the bones most easily fractured in Paget's disease, and frac-



Fig. 2. Interior view of calvarium from a patient with Paget's disease showing deep excavation of bone by the cerebral blood vessels. Note great thickness of bone and dark marrow. The bone can be easily cut with a knife.

tures occur often after slight trauma and may sometimes appear spontaneously. As the callus goes through the various stages of calcification and ossification, it becomes involved in the pathological process, and the new bone also shows roentgen evidence of Paret's disease

He concludes that the fracture may heal completely though somewhat more slowly than normal. A rather high proportion of these patients develop osteosarcoma, particularly at the site of old fractures, according to Maes,17 for the regenerated bone seems to have a special predisposition to sarcomatous change. While a number of writers (DaCosta, Carman and Garrick,18 Hurwitz,5 Love,10 and Lewin20) consider fractures rare or infrequent in Paget's disease, others (LeWald.21 Auffret,22 Maes,17 Locke,23 and Jaffe2) believe fractures are common or at least not unusual. Incomplete fissures are common and with slight trauma may become complete fractures, and multiple fractures in the same individual, in the same or different bones, are not uncommon. There is also a great difference of opinion as to the rate of healing in fractures associated with Paget's disease. A few have reported early healing, i. e. more rapid than in normal bone.24 Non-union seems to be rare. Among the sixty-one cases studied at Albany Hospital the author found seventeen instances of fracture, and in fifteen of these the fracture was in a bone involved with Paget's disease Of course, it is dangerous to make deductions from so small a series, but the following conclu-

sions seem to be warranted:

(1) Normal union occurred in one-third of the cases, and delayed union occurred in an equal number of cases; (2) Early union occurred in one case, a fractured femur; (3) Non-union occurred in one case which developed a sarcoma at the site of the fracture (ischium), and death followed three years after the injury from metastases to the lungs; (4) No record could be found as to rate of healing in three fractures

Of these fifteen patients, five had multiple fractures. In three instances the humerus was fractured twice, and one of these patients also fractured both scapulae. In one instance the radius was fractured four times. One patient had a fracture of the femur and later fractured the tibia and fibula. So the total number of fractures in the fifteen patients was twenty-five. All the fractures united except in the one case which developed a sarcoma at the site

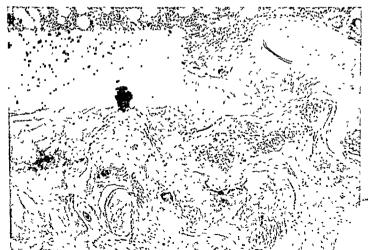


Fig. 3 At upper border vers active marrow. Very thick trabeculae of bone which is por calcium and resembles osteoid tissue. Marrow spaces show marked fibrosis and dilated very

of fracture and died of metastases. Two patients with Paget's disease had fractures in bones not involved in the pathological process; both showed delayed union.

I am indebted to Dr. Howard and to other members of the staff of the Albany Hospital for the privilege of reporting these cases. 99 Washington Ave.

RESULTS IN 15 CASES IN WHICH THE FRACTURED BONE WAS INVOLVED WITH PAGET'S DISEASE

Identification	Age	Ser	Site of fracture	Union	Extent of involvement with P. D.
1. A. P. H8815		F	Pelvis	Normal	Pelvis, right femur
2. J. W. H5301	53	M	Tibia	Normal	Pelvis, lumbar v. femora, tibiae
3. A. H. H6143	80	F	Femur	Normal	Pelvis, right femur
4. M. K. I8408	54	F	Femur	Normal	Femur (no other x-rays taken)
5, R. B. 19454	48	F	Humerus	Delayed	Skull, humerus
6. W. S. H3381	66	M	Pelvis	Non-umon (sarcoma)	Pelvis, femora, ribs
7. J. S. F6650	53	M	Radius	7	Radius, skull, ribs, vertebrae femora, tibiae, fibulae
8, A. C, G1885	48	M	Femur	Early	(No visible changes in pelvis lower dorsal or lumbar spine)
9. F. L. G1889	58	M	Tibia and fibula	Delayed	Tibin and fibula, skull, spine, clavicles, humeri, scapulae, pelvis, femora (old fracture of femur with Lane plate)
10. C. S. I6000	67	M	Humerus	Delayed	Humerus, scapula, pelvis, femora (old fracture of same humerus)
11. W. E. J856	73	M	Radius	Delayed	Radius, skull, pelvis, femora (refractured radius 3 times)
12. T. D. F884	58	M	Ribs	?	Ribs, humerus, skull
13. J. G. (1900)		M	Humerus	Delayed	Humerus, skull, clavicle, femora, tibiae (2 fractures same bone)
14. C. M. G8850	53	F	Tibia	3	Old fracture of tibia (negative skull, shoulder girdle humeri, ribs, spine and pelvis)
15. F. H. H9999	48	M	Scapulae	Normal	Scapulae, left humerus, lumbar vertebrae, pelvis (2 previous left humerus)
			SUMM	IARY	period (a previous fert indicerds)
Norma	l unior	n			5
Delaye	d unio	n			5
Early t	anion,				1
Non-us	nion .	• • • • •			
No rec	ord	• • • • •			3
To	tal				15

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THE PATHOLOGY OF FATAL BIRTH INJURIES

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During the year ending June 30, 1934, 1.751 women were delivered of a total of 1,771 babies on the Bellevue Hospital Obstetrical Service. Of these infants 1,596 were discharged living and in good condition, while 175 died from various causes and slightly under 80 per cent were autopsied. The gross fetal mortality was therefore 9.88 per cent. Fiftyseven of these cases were non-viable, while thirty were either macerated at birth, fetal death having taken place before labor or early in the first stage, or presented anomalies considered incompatible with life. Correcting the mortality for these cases we find a percentage of 4.96. When we further consider that forty of the remaining eighty-eight cases were premature, we find that the mortality of term infants, stillborn but not macerated or dying within the period of hospitalization of the mother, amounted to 2.7 per cent.

Birth injury played a great part in the remaining group of 48 for one-third (16) of these infants coming to autopsy were found to have sustained injuries to the central nervous system and its protective covering, or to the abdominal viscera. In addition, in 22 per cent of the non-viable and premature infants evidence of injury was found. The purpose of this treatise is to discuss the nature of these injuries, the possible method of their production, and the clinical picture which they produce. The chief injuries found may be divided into three main groups: (1) the intracranial, (2) spinal, and (3) intraabdominal.

Intracranial Injuries

Anatomy. A clear understanding of the protective structures of the brain together with the dural sinuses and the venous drainage of the brain, is of the greatest importance in interpreting the intracranial lesions. The skull of the new born infant is soft and yielding, and during the course of normal labor must undergo considerable change of size and shape. Serious damage results when this change, known as moulding, is carried too far or occurs too abruptly. The dural senta serve in the adult to divide the cranial cavity into compartments and to carry the large sinuses. In the fetus they serve in addition as internal supports to the cranium and prevent sudden or excessive changes in size and shape of the cranial cavity.

The dural septa are two in number and are formed by reduplications or folds of the lining membrane of the cranium. The falx cerebri is a thin sickle shaped septa extending from the crista galli of the ethmoid bone in front to the internal occipital protuberance posteriorly. Its upper border is attached to the cranial vault in the mid-line, just beneath the sagittal suture. Its lower border is free, with a concavity. Within its folds course two large sinuses, the superior and inferior longitudinal sinuses. The tentorium cerebelli is the large tent-like septum that roofs in the posterior cranial fossa and separates the cerebrum from the cerebel-In general form it is crescentic, the longer convex border lying behind and attached to the posterior and lateral margins of the posterior cranial fossa, and the shorter concave anterior border curving backward and upward from the anterior clinoid processes. The upper surface of the tentorium is held taut by its attachment to the falx cerebri along its entire median plane. The free tentorial border forms the incisura tentorii, an arched opening. The highest point of this opening lies just behind the corpus callosum. The fibres of the tentorium pass from one side to the other and decussate with those of the falx so that two distinct layers are found.

These septa are not equally strong

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throughout, but it is found that the strongest fibres come into play in resisting cranial stress when the fetal head is fully flexed—the normal position during labor. Between the folds of the tentorium lie several large sinuses. The straight sinus runs directly backward between the layers of the tentorium along the line of junction with the falx to the occipital protuberance. Here it is joined by the superior sagittal sinus and splits to form the lateral sinuses. At its anterior end it is joined by the inferior sagittal sinus and the great cerebral vein. The latter vein drains both right and left cerebral veins, receives tributaries from the cerebellum, and passes free and unsupported from the corpus callosum to its point of juncture with the straight sinus. right and left cerebral veins receive blood from the veins draining the base of the brain and lying beneath the floor of the lateral ventricles. The latter vessels are frequently ruptured in the premature. The great cerebral vein is singularly open to tension when the junction of the falx and tentorium changes position. This obviously must occur during moulding as will be shown later. The intracranial hemorrhage occurring in term infants, is due to laceration of the vein or of its tributaries, not to ruptures of the dural septa which tear as a rule through an avascular

Forces coming into play during labor and their effects. During even the most normal labor the soft parts exert enough resistance to result in some change in shape of the fetal cranium. changes are marked in the case of actual disproportion when strong uterine contractions are present. They are resisted by the intracranial septa. Gradual slow changes in shape take place as a rule without harm. When force is applied excessively or abruptly the fibres in the dura snap and marked changes in the shape of the cranial cavity take place. Antero-posterior compression results in raising of the vault of the cranium with consequent elevation of the junction of falx and tentorium, and tension on the great cerebral vein and its tributaries. Excessive and sudden antero-posterior pressure results in a rupture of the tentorium at a rather uniform point, about one centimeter lateral to its junction with the falx. The subsequent increased tension on the great cerebral vein results in rupture of the vein itself or of its tributaries. Subdural hemorrhage follows and is usually small in amount rarely producing bulging of the fontanelles. Since the force producing these lesions never ceases following this damage, excessive changes in the shape and size of the cranial cavity ensue with resultant cerebral There is little or no gross evidence of this cerebral injury but microscopically small perivascular rhages may be found. Lateral compression results in an elongation of the cranial cavity and increased tension in the falx. Excessive or abrupt lateral compression results in large tears in the substance of the falx. Cerebral injury due to loss of cranial support may follow this.

The above description covers adequately the intracranial injuries found in term infants. These injuries occur most commonly in vertex presentations when forceps are applied unskillfully, or when the fetal head is drawn through the least suitable pelvic diameters; in breech deliveries when disproportion exists or when the proper mechanism of labor is ignored; and, least commonly, in precipitate labor with abnormally strong maternal forces. Often they are inevitable, due to a pardonable mistake in judging the relation of fetal size to maternal pelvis, or due to the necessity for interference because of the failure of maternal forces. Eighty per cent of the intracranial injuries found in term infants belonged to this type.

There exists another set of forces during labor which does not affect the term infant other than to produce a marked hemorrhagic edema of the fetal scalp in cases of dry labor. It is possible that temporary changes due to this force take place in the intracranial cavity. In the premature infant these forces may produce fatal effects, but as a rule they do not come into play until the membranes have ruptured. During a uterine contraction the portion of the fetal head exposed in the undilated cervix or rigid vaginal introitus becomes a point of low pressure in relation to the rest of the fetus. The abundant scalp veins and lymphatics in this area tend to become engorged and distended. The dural sinuses and small arachnoid vessels also become distended because of

these forces The vessels in premature feti are poorly developed with very weak walls and cannot withstand distention In addition to edema of the scalp, the premature sustains edema and diffuse hemorrhage of the small arachnoid veins, and sometimes because of the reflection of pressure along the intracranial sinuses, rupture of the thin-walled veins lying beneath the floor of the lateral ventricles with production of large subventricular or intraventricular hematomata. This type of lesion is never seen in the term infant but is characteristic of the premature These injuries are caused by the natural forces of labor and are most often seen in spontaneous deliveries. They may occur during cervical dilatrition or while the premature head is being forced through a rigid introitus. The shortening of premature labor by low forceps and episio tomy will save many fetal lives Twenty per cent (21 cases) of the premature or non viable babies showed this variety of lesion Few showed dural lacerations

Clinical thenomena Infants who sustain intracranial injuries and who survive delivery, present the picture described as "asphyxia pallida" They are very pale with a faint weak heartbeat, the respira tions are absent or are slow, shallow and irregular, and the muscle tone is practically gone Their condition is one of shock and is analogous to concussion in the adult Many require artificial methods of respiration and may show temporary improvement following their use During the next few days the infant is apathetic and refuses to nurse Often they steadily become worse with increasing cyanosis, and die Should they survive forty eight to seventy two hours, the outlook is hope ful, and several have been followed who show no apparent permanent effects From the nature of the lesion described active treatment is contraindicated. Complete rest and quiet would seem to be an important factor in recovery. Evidence of a true hemorrhagic diathesis is rarely present

In the premature infant, the clinical picture is less typical since in most instances the injury is less severe. It would seem likely that these injuries play a part in the apathy and feeding difficulties of many premature infants.

Spinal Injuries

Anatomy The fetal spine is not a sturdy structure found in the adult ligaments are poorly developed and the spinal column is made up of segments of cartilage and connective tissue with rela-Under traction it is tively little bone capable of elongating considerably tained in the spinal caml and attached to to the walls by nerve roots and vessels, is the spinal cord which is relatively in-Elongation of the spinal column must result in injury to the vessels and nerve roots which pass from the cord to the spine, injury to the cord itself, and finally in rupture of the spinal column

Forces coming into play during labor and their effects Injury to the spinal column and cord occur almost always under two circumstances (1) most commonly during breech extraction, and (2) occasionally in vertex presentations in large babies when, following the delivery of the head, the shoulders become impacted in the brim of the pelvis. The mechanism is essentially the same. When a breech extraction is attempted under proper conditions, the fetal body responds to slight traction. During the latter part of the procedure the shoulders or head may become impacted in the brim of the Excessive traction, now against a fixed point, results in elongation of the spinal column, rupture of spinal vessels and finally in rupture of the spinal cord and spinal column Torsion and angulation of the spinal column combined with traction, increases the possibility of these mjuries They are often associated with intracranial injury Because the head is the most frequent point of impaction, injury is most frequently found in the lower cervical vertebra, the point where angulation of the spine under symphysis and torsion of the spine occurs The spinal column injury is a separation of the epiphysis from diaphysis of one of the vertebra The spinal cord injury is marked first by hemorrhage about the cord and in more severe instances by partial or complete rupture. The cord is involved for several segments above and below the point of rupture so that in the cervical cases the medulla is involved

The prevention of accidents such as this

lies in reduction of breech presentations by antepartum external version, and by careful gentle technic in breech extraction, with proper attention to the mechanism of labor. Less force should be used in dealing with vertex presentations complicated by impacted shoulders. Four such cases were found at autopsy, two occurring in breech deliveries and two in vertex deliveries with impacted shoulders.

Clinical picture. Those infants suffering marked injury to the cervical cord never survive birth, Certain of the brachial palsies are due to cervical spinal cord lesions. Cord injuries below this point show the picture of a trasverse myelitis and often survive for many years.

Abdominal Injuries

The two organs involved are liver and adrenal. The liver injury consists of the rupture of a small vein beneath the capsule of the liver. Unless death occurs due to an associated injury, a gradually increasing hematoma develops, and as a rule after thirty-six to forty-eight hours, rupture takes place and profuse intra-abdominal hemorrhage occurs.

This injury may occur in a spontaneous labor, especially in a labor that is prolonged, dry, and with powerful uterine contractions. Badly applied abdominal pressure often used to assist the second stage may be a factor. Frequently these are seen following breech delivery and are caused by the operator grasping the upper abdomen of the fetus in performing extraction. Violent efforts at resuscitation may be a cause.

The adrenal injuries result from rupture of a thin-walled vessel in the medulla with the production of a growing hematoma which attains large size and destroys the gland. These hematomata are almost always bilateral and are most frequently found in babies dying after breech extraction. They are caused by the operator grasping the upper abdomen of the fetus tightly during the delivery.

The clinical picture in these cases is very similar. Providing there is no associated intracranial or spinal injury these infants appear quite normal during the first twenty-four to thirty-six hours. Then they become apathetic, refuse to nurse, and die within twelve to twenty-four hours. Five such injuries were found among the term babies and two in prematures. The most hopeful method of dealing with this type of case again seems to lie along the lines of prevention.

Conclusion

One must conclude that the greatest means of improving the fetal and neonatal death rate in this group of cases lies along the lines of prevention. This knowledge can only be acquired by autopsy of all still births and infants dying in the neonatal period, not by the general pathologist, but by a pathologist well acquainted with the conditions under which these injuries occur. This necessitates a closer relationship between clinical obstetrics and pathology than is found in most institutions.

Of the three main types of cases, the term infants with mild cerebral injury offer the best prognosis as far as complete recovery is concerned. The best form of treatment in these cases is absolute rest and quiet until definite improvement begins to take place.

768 PARK AVENUE

"HERE'S HOW" BACTERIA SPREAD

The increasing prevalence of trench mouth in the United States was attributed to insufficient washing of the rims of cocktail, high ball, and beer glasses in a paper presented by Dr. Don Chalmers Lyons, of Jackson, Mich., before the Society of American Bacteriologists at its thirty-seventh annual meeting at the Hotel Pennsylvania in New York City. Other spirochaetes, some of them carrying diseases more dangerous than trench mouth, he reported, were found in surprisingly large numbers among the bacteria on the rims of glasses racked upon

the bars of taverns and saloons selected for his experiments.

Although alcohol is itself an antiseptic, he said, it seemed to have had little effect on the trench mouth germs.

The large percentages of Vincent's stomatitis, or trench mouth bacteria, he suggested, showed that "proper methods are not being taken in beverage dispensing establishments to prevent the spread of this disease. It suggests the necessity of better control of methods of glassware cleaning in such establishments."

RADIUM THERAPY

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At the present time there still exists a certain degree of confusion as to the relative position of radium in irradiation therapy. Throughout the profession in general, this confusion is due largely to the rapid and popular advances of x-ray therapy during the past few years. Within irradiation circles, it is increased by the placing of too great a burden on our present day x-ray therapy—a burden predicated on hope rather than fact and experience.

It is the purpose of this brief communication to couplastice the steadily increasing value of radium in the treatment of cancer, and to attempt a clarification of its relative position in the more limited

sohere of irradiation therapy.

The treatment of the neoplastic diseases today is dependent almost entirely on surgery and irradiation therapy. The profession is rapidly coming to appreciate the advantages of combined methods of treatment; the one-time impression of competition between surgery and the physical agents is being steadily replaced by a realization of their complementary relationship. The same relation exists between radium and z-ray, but, unfortunately, it is not as clearly recognized. Perhaps it was recognized at one time, but is for the moment transiently forgotten because of the rapid progress of x-ray therapy.

It is not the purpose to discuss here the possible advantages, pro or com, of these two physical agents for external distance application. We are concerned for the moment with the strictly practical side of every-day clinical work. In the amounts now available and with the distribution as it is, radium is not practical for telecurie-theraple, except in an extremely limited fashion. X-rays represent the practical source of energy for external distance irradiation over large areas. Radium, on the other hand, is adaptable to application within body cavities and particularly for placement in some form directly within the tissues. It has an important, yet

limited, value for surface application over small areas only. With this general adaptability of the two agents, I am sure are all, for practical purposes, agreed.

During the earlier years of radium therapy, very definite and encouraging results were obtained in the treatment of some forms of malignant disease. These results, however, were obtained by empiric methods and often at the expense of much suffering on the part of the patient, incident largely to gross tissue destruction. Results obtained under such circumstances are prone to be forgotten, or rather submerged, by the unhappy and lasting imprecsion of physical suffering left in the mind of the casual observer.

As time went on and experience accumulated, many of the undesirable features of radium therapy were eliminated. The maximum fisue-tolerance decage with radium has been fairly well-established. The influence of complicating mixed infection on this tolerance is well-recognized. The response of various histological types is all the while better understood. It is now just ten years since it has been possible to employ radon interstitially in filtered rather than unfiltered seeds. This, together with the other factors mentioned, has eliminated in a large measure the problem of gross destruction of tissue by radium irradiation.

Added to certain of the early and unfavorable impressions of radium therapy in the mind of the profession at large, has been the unfortunate new-paper publicity attendant upon certain commercial uses of radium element. This unfavorable publicity, while having no relation whatevever with the therapeutic application of radium element or radon, has created a measure of skepticism with a section of the public. During the past few years radium element or radon in any desired form has been readily available for use by any member of the profession choosing to employ it. Some of the commercial companies providing this service have not been as conscientions as others

in the selection of those to whom they have furnished it.

Criticism, however, on this point should not be limited to the commercial companies. Many institutions and some individuals owning small amounts of radium have elected, for economic reasons, to farm out their radium, when not being used personally, to those having little experience in the use of what may easily be a dangerous agent. The economic conditions of the past five years tend only to encourage such practice. The general practitioner, and those of the profession having only a casual interest in irradiation therapy, are not apt to analyze the individual case very deeply; they are not apt to investigate and to distinguish between many of the unfortunate results of such practice and the real progress which has been made during the past few years through the use of radium in experienced hands. Many in the profession have neither the time nor the opportunity to investigate the real progress. There are, therefore, many physicians in an extremely favorable frame of mind to accept what they may regard as a substitute or competitive agent. This at once places an unfair burden on x-ray therapy.

The earlier experience with x-radiation was discouraging. Later, with higher voltages, better results were obtained. With added experience these were improved. The background existing between radium and x-rays has been quite different. The initial encouraging results with radium were obtained, very broadly speaking, through overdosage; x-rays it has been just the opposite. Initial encouragement was through the use of what we now regard as very small doses indeed. The only overdosage with x-rays came with the introduction of the 200 K.V. equipment, and here the overdosage was on the basis of individual exposure rather than total dosage. This was soon recognized and various methods of fractionating the dose promptly instituted to avoid the undue constitutional effects of the heavy individual exposures. Today we have excellent equipmentthanks to the engineers—and a very high degree of accuracy in the measurement and control of x-ray dosage, through the aid and cooperation of our physicists.

Much of the experience gained through

the earlier empiric radium work has been applicable to the building up of our present excellent high-voltage x-ray therapy. Many of those most deeply concerned with x-ray therapy have been for years slowly and steadily working out the details of fractionating and spacing x-ray dosage in order that the patient may derive the maximum of benefit with minimum of local and constitutional adverse effect. It remained for Coutard to give popular expression to this phase of the work. He did not by any means set forth a new method of x-ray therapy. He did. however, give concrete expression to a very definite principle in 200 K.V. x-ray therapy—namely, daily or semi-daily exposures, consistent with the patients' individual constitutional tolerance, and carried over a substantial period of time —frequently several weeks, much heavier filtration than is ordinarly employed, and a very slow rate of delivering the individual dose. This work was done entirely, almost entirely, with epidermoid carcinomas involving the hypopharynx.

Coutard's work was widely published. Within the radiation group we are most deeply indebted to him for his foresight as well as his courage in visualizing and carrying through to a successful conclusion such an excellent piece of original and advanced work. His work has touched such a note of popular response throughout the profession in general, as well as with a large section of our public, that its true value is in serious danger of being discounted; too much has come to be expected of it. Many physicians in general practice, or engaged in the other specialties, have today the impression that everything of value in irradiation therapy is embodied in the so-called Coutard method of x-ray therapy. As a matter of fact, relatively few x-ray therapists are equipped to carry out the Coutard principle of treatment. Many of those who are adequately equipped regard it as economically impractical for their particular work. It is time-consuming because it makes use of but a small percentage of the actual output of radiant energy from the high-voltage tube. As a result, all sorts of modifications are being indulged in, vet the impression very carefully retained, and all too often advertised, that the Coutard treatment is being adhered to.

It is obvious that this is unfair not only to the practitioner who cannot be expected to be familiar with all detrils of such work, but more particularly to the patient who is staking his chances on what he is led to believe is the best procurable in treatment Granting, however, that the Coutard principle of therapy is well carried out, and granting also that this principle is applicable in reasonable meas ure to many types of malignant disease and in various locations throughout the body, we must not lose sight of certain other important facts. We must remember that we are still dealing with a form of radiant energy adaptable only to external use In its application we are limited ultimately by the skin tolerance of the patient Any attempt to gain just-a little more of advantage over the malignant growth by increasing the x ray intensity beyond this ultimate skin tolerance results in irreparable damage

We should pruse at this point to recall that we have a source of radiant energy which will permit increasing the local intensity within the tumor bearing area to the desired level without overdoing the x ray therapy I refer, of course, to the use of radium element in needles, or to radon seeds, for interstitial implantation throughout the tumor-bearing area, after a reasonable amount of x ray therapy has been given. It is in the failure to recog mize this very point that so many un necessary irradiation failures come about The x ray therapist at the present time is prone to forget the values of radium for increasing the local intensity of the destred dose The same criticism obtains with the radium therapist in attempting to accomplish more than is practically feasible with his agent alone combination of the two that fulure is fre quently turned to success

In present day cancer therapy, there is no place for the isolationst. Familiarity with all methods is essential to the best interests of the patient. This holds equally true for the surgeon who assumes responsibility for the care of the cancer case as for the radiation therapist, whether the primary interest of the latter be in a rays or in radium. The cancer therapist must take advantage of all possible ands it all times, if the curability of cancer is to be improved upon. After all, there

are few of the major types of cancer in which at some place along the course of treatment two or all of these methods or agents are not found to be advantageous in the carrying on of the treatment to best advantage. In some instances it may be a matter of selection as for instance with that large group of growths involving the skin surface, or, more frequently, however, it is a matter of utilizing to best advantage the proper method or agent, in the proper place and in proper sequence

Take for instance that vast group of epidermoid carcinomas involving upper mucous membrane tract We now know that they present a wide range of histological variation-consequently they have a wide range of relative radio sensi Coutard, and many others as well, have shown that many of the primary growths in the hypopharyny and larynx are curable through x-ray therapy alone without operative surgery and without the use of radium. One must remember, however, that many of these growths have metastasized to cervical nodes these metastatic nodes show a marked response to the x ray beam which cures the primary growth, relatively few of them are completely eradicated by that The x ray therapist is apt to be misled by this favorable initial response and disillusioned only several months later when the remnant of the metastatic node gradually takes on renewed growth is then much more resistant to any form of therapy We know that these socalled radio sensitive growths are very highly malignant in that they are prone to early and wide spread dissemination For this reason metastatic nodes are but rarely curable by the older method of radical surgical neck dissection ever, we take advantage of that favorable period when the node is reduced and qui escent, following the x ray therapy, expose it surgically and implant it with radium element or radon seeds, the chance for cure is very much greater many of the primary growths in the mouth and throat, particularly those be longing to the intermediate grades from a radio-sensitivity standpoint, surface healing and consequently relief from immediate symptoms should not be accepted with too much enthusiasm. Here again implantation with radium tremendously enhances the probability of permanent cure. The preliminary x-ray therapy is a great aid to the subsequent radium therapy, in that it reduces the growth, aids in clearing up the surface ulceration, and consequently the surface infection, so that a radium dose of lesser intensity may be introduced with much less risk of infection. The radium dose adds tremendous assurance to the permanence of the result initiated through the x-ray therapy. In other words, the one physical agent is strictly complementary to the other.

For several years now radium has been regarded as the agent of choice in the treatment of carcinoma of the cervix uteri. We now know that with the improvements in our x-ray therapy, the results are infinitely better if pelvic irradiation with x-ray precedes the direct and local application of radium. More recently it has been found that intensive irradiation therapy rivals, if in fact it does not replace, operative surgery in dealing with many cases of carcinoma of the fundus uteri. Just because symptoms are controlled by x-irradiation and because the growth is not amenable to direct inspection, does not mean of necessity that the growth is completely controlled. It is a simple matter to introduce heavily filtered radium into the fundus of the uterus, if carcinoma of the fundus is to be irradiated rather than removed by hysterectomy. Such treatment is most certainly not complete unless radium is employed by intrauterine application in conjunction with the external x-ray therapy.

In carcinoma of the breast, x-ray therapy is obviously the method of choice for pre- and postoperative irradiation in the operable group of cases. However, any experienced surgeon knows how frequently unexpected findings turn up in the axilla at the time of operation. No surgeon who assumes responsibility for the care of a case of breast cancer should proceed with the operation without having

available for immediate use a suitable supply of radium in case some unexpected finding of metastatic involvement precludes the finishing of his dissection, as he had hoped and anticipated would be possible.

There are so many instances in which radium is of value for use at operation that the space here available would not permit an attempted enumeration. In addition to the value of interstitial radium irradiation at the time of operation for extirpation of growth, there are in turn many instances where surgical exposure of the tumor is essential to proper and accurate radium or radon placement.

The point I wish to convey is that the general management of cancer in all of its types and phases is, in general, a surgical problem; that we have extremely valuable aids in both radium and x-ray therapy, and that a familiarity with both of these physical agents is essential to meeting squarely our responsibilities to the cancer sufferer. Furthermore, I wish to point out the fact that there is very little competition between surgery and irradiation therapy. Best results are obtained by a combination of all three measures rather than by stubborn adherence to one or the other alone. Especially, however, I wish to point out that in the more limited sphere of irradiation therapy, one must not be misled by the very encouraging and at times spectacular results from x-ray therapy alone. It enhances the benefits to be obtained from radium, but it does not replace them. The two agents should be used in very close coöperation, rather than in the spirit of attempting to cover the irradiation phase completely by either one or the other agent alone. Radium and x-rays are neither antagonistic nor competitive in adaptability or effect. They are strictly complementary. A closer combination of the two agents invariably reacts to the benefit of both and decidedly to the advantage of the patient. 350 PARK AVENUE

"QUACK DOCTORS—DEATH DEALERS"

In sentencing a former barber named Kenneth Barron to jail for practicing medicine without a license, Judge Erwin J. Hasten of Chicago said: "Quack doctors are death dealers and a menace to the reputable medical profession. In reality, they prevent

ignorant, gullible persons from getting the services of competent physicians. Instead of healers they become killers indirectly." Barron operated the "Madison Western Clinic" which advertised medical service at cut-rate prices. One death occurred at the clinic.

CHRONIC ENCEPHALITIS

Care and Treatment of Patients Found in State and Municipal Hospitals

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The importance of the study and care of patients suffering with chronic encephalitis and especially those who show abnormal mental states, is still neglected by both municipal and State authorities. A census shows a constant increase of such cases in the chronic wards of our municipal hospitals, and the same condition exists in the State hospitals for the insane. In considering this problem one is confronted with certain questions which should be analyzed carefully before it can be said that these people are receiving the attention they deserve.

(1) Do the patients who are victims of chronic encephalitis found in the State institutions for the insane really belong in such an institution?

(2) Should the psychiatric reactions observed in such patients be sufficient to classify the patient as a definite case of psychosis?

(3) If the patient is not psychotic, should one not consider the environment in which he is placed?

(4) In such institutions to which all types of psychosis are committed (and as we know the institutions are already overcrowded), do these patients receive the proper treatment?

(5) Is it possible to carry on methods of investigation which may produce the best results in an institution of this type?

(6) If there are psychotic manifestations present, are they not associated with and in most cases undoubtedly the result of organic brain disease?

(7) Since it is possible to check the progress of this disease and to relieve the most troublesome symptoms to some extent, does the State not owe this attempt to each individual case?

(8) Should patients suffering chronic encephalitis lethargica be kept in the chronic wards of Municipal hospitals?

considering the postencephalitis mental syndromes we must divide them into two groups. Those that are found in children and those that are prevalent in adults. It is the general opinion that behavior disorders are more frequent in younger patients and that bradyphrenia is more frequent in adults. In a consideration of the problems stated above more time will be devoted to the older patients, as they represent a group of people, in the majority of cases, who have had a well-developed brain, have been able to earn a livelihood, enjoyed the pleasures of life, and appreciated the circumstances of their environment.

Steck1 in his study of this problem found that 369 victims of encephalitis had been in Swiss asylums for mental disease and that 257 of these cases showed evidence of Parkinsonism. Although the author has no figures for the institutions throughout this country it is certain that the proportion is even greater than in

Switzerland.

In these cases associated with Parkinsonism there is noted in every case a mental slowing, but this does not depend necessarily on the severity of the Parkinsonism. Bromberg2 in a recent article pointed out that careful psychometric examination of the adult cases have failed to demonstrate the presence of any real intelligence defect. Von Economo has placed emphasis upon this same observation in his latest publication on encephalitis lethargica and its sequelae.

Special attention is called to the fact that this holds for adults rather than children, as one would expect a defect in the latter due to arrested development of the brain. Although these patients show narrowed fields of interest and sometimes an indifference in regard to personal affairs, they still maintain an affective contact with their families as well as unimpaired memory, judgment, and orientation. The appearance of the patient, especially in advanced Parkinsonism, as well as his reactions and responses might lead one to assume that the patient is an advanced case of dementia.

But if one persists in analyzing this type, one is soon impressed with the mental integrity and clearness; and one finds the type can offer an explanation on a basis of "weakness" or the "impossibility of making certain movements," often interpreting the asthenia that is so marked as some form of paralysis which has arisen out of the great effort it requires to move the limbs. Sight must not be lost of the fact that this patient is a lay person and the peculiar change that has come over his entire body as well as his activities is far more of a puzzle to him than it is to the professionally trained mind that still has much to learn about the condition.

The changes in the emotional state of the patient must likewise be carefully studied. The so-called emotional duliness that is observed in a large percentage of cases may be more apparent than real. Since the person of this category is restricted by the fixation of facial muscles and by poverty of all volitional movements in his attempts to demonstrate emotions, one has to get behind the mask for the true answer. Many neurologists have had the experience of watching the marked improvement of such patients, placed upon treatment. These patients show a change in their emotional sphere as well as in their activities. Many realize their unhappy condition and feel correspondingly dejected. Should one consider this reaction an abnormal state of mind, or should this expression of their thoughts be expected? At any rate, there is very little in such a condition to be happy over.

Although euphoria is observed in a small number of cases, the incidence appears to be most frequently in younger people. It has been the author's experience that when it is present in the adult, the patient is travelling under false colors. He insists that he is improving and that he feels fine, yet he is only utilizing the psychology of the Coué treatment, hoping, merely, that his desires will be fulfilled.

The cases that have been described in which obsessions and compulsions occurred, though not very numerous in the lts, are most often associated with agyric crisis, respiratory disturbances, various types of tics. Anxiety states often associated with all types of the re and they are presumably most in the earlier stages of proin instances where the pathold to a small portion of the

brain. There is an example of this in a case in the Kings County Hospital at the present time, of an adult with segmental dystonia who has an anxiety state so developed that he is continually watching for any change in his condition or new developments.

Many authors in describing the schizophrenic-like states that have developed following encephalitis lethargica admit that only the accessory symptoms of schizophrenia are observable. It has been noted that such important symptoms of schizophrenia as true negativism, poverty and dissociation of thought, and antism are absent. The majority of these patients generally remain in contact with their environment.

Schilder has pointed out that these patients show a certain self-criticism with regard to their delusions and may be easily influenced by persuasion, also that in contrast to schizophrenia an actual inner splitting of personality does not occur.

Steck believes that the association of schizophrenia with encephalitis may be largely a matter of coincidence. Paranoid and hallucinatory states do occur and Bromberg calls attention to thirteen instances of paranoia and only one of hallucination in 135 cases. It has been noted that these conditions are transitory in many cases.

It is not uncommon to find patients complaining of disturbances of temperature, vasomotor symptoms, paresthesias, dizziness, and palpitation. The obscure pains as well as various compulsions and phobias may be explained on the basis of peculiar bodily sensations. In fact we see same psychic disturbances patients suffering from genuine vasomotor diseases as well as in cardiac conditions. In this disease we recognize the frequency with which vegetative centers have been affected by pathology. Consequently in such cases the neurasthenic state may well be the result of misinterpretation on the part of the patient with his insight and anxiety to explain or discover the cause for such symptoms. The insight that the patients exhibit is well illustrated by their apologetic attitude for their uncontrolled motor activities such as tumors, tics, oculogyric crisis, or attacks of hyperpnea with forced expiration.

It has been my experience that maliciousness, pugnaciousness, stubbornness, lying, disobedience, and irresponsibility are observed in the younger group of cases This group represents an entirely different problem because of the arrested development of the mental faculties Many of these patients are considered behavior problems and because of this classification one is encouraged to believe that one's therapeutic attack should be along psychological lines. The author contends that this form of therapy must not be neglected in the adult cases, as it represents one of the most important forms of treatment

In the careful investigation of the patients whom are found both in state institutions for the insane and the municipal hospitals, one is impressed with the most common reasons for their admission The family has been told that this disease is a chronic progressive disease with no hope for a cure The patient becomes a burden at home The relatives lose interest in attempting to please the patient, or to make him happy They look upon the entire situation as a mere matter of time and are embarrassed when their friends visit the home and note the patient's condition This attitude generally means neglect of the patient, who becomes despondent on this account That is why he shows such a marked degree of depression or despondency on admission to the institution. He realizes, moreover, that he has been in the way, and that, because he is a burden, he has been making his relatives unhappy

Granted that most patients who suffer from chronic encephalitis shows certain abnormal mental symptoms, is one justified only in the exceptional cases in making a diagnosis of psychosis? Observation teaches that many of these patients should not be classified as psychotics and consequently should not be kept in institutions for the insane. These people have a marked degree of insight and realize the type of institution they are in Thus it is difficult to attempt the type of psychological treatment for the best results The mere fact alone that they are in the society of other patients who show psychotic manifestations, that they themselves can recognize, gives them anxiety Invariably they ask the physician "Will this disease affect my mind?" and "Do you think that I will go crazy?" That is why it is unfortunate for the patient to find himself detained in an institution as an insane person associating with insane people Even with his own sanity quite intact, what chance have those in charge to make progress with psychological therapy?

Frequently these patients are admitted to the acute neurological wards of municipal hospitals, only to be transferred after a short time to the chronic wards, either because beds are scarce or because the case is incurable. The patient, realizing that he has been labeled an incurable and placed back on the shelf for future reference rather than for daily attention, comes face to face with the hopelessness of such diseases as multiple sclerosis, myopathies, paralyses, and the like The environment. what with bed ridden patients in the overcrowded wards, which place him in a poor state of mind, impair circumstances favorable to psychological therapy

The literature is full of descriptions of various syndromes resulting from this disease. The results of laboratory investigation and pathological examinations are all exceedingly important and still to be desired The field for investigation that offers most to the patient is the treatment Food and shelter is necessary, but more is deserved than these. The effects of certain forms of medicinal treatmenthyoscine hydrobromide, stramonium, duboisine sulphate, and atropine-are well known 'An arrest of the progress of this disease for long periods of time and the relief of the most annoying symp toms to some extent have been noted The greatest satisfaction is obtained when individual attention is applied to the patient, not only from the medicinal point of view, but from every angle, including regulating daily routine, outlining diet, planning activities both as to play and useful endeavors When this patient realizes that he is a patient and not simply an inmate or boarder, the first milestone towards success in changing his outlook on life will have been passed

The author would call to the attention of the state authorities the weak links in present methods of handling this problem He would plead with them to sense fully their responsibility to these their fellow men who have been so unfortunate as to be afflicted with this dread disease. He would recommend, moreover, that at least one institution be erected to handle these cases alone, this institution to be carefully planned and the site well-chosen. It should, first of all, be located in the country and have sufficient grounds to meet the requirements for exercise. The State spends millions on parks for the healthy; why can it not afford a park for the sick?—for the chronic encephalitis sufferers who need sunshine and exercise? They are still capable of thrilling at competition and games—inside or out. Many of them are card and checker enthusiasts. and when such games are arranged in tournaments for them the spirit is increased. Though the great number of these persons would be well satisfied to sit and listen to the radio, this should not be allowed and can, with proper supervision, be avoided.

The general physical condition should be thoroughly investigated and watched. All foci of infection should be removed. The care of the teeth in the patient is often neglected, especially since there is an excess of saliva, with the teeth decaying early. Since the metabolic rate is low in many cases, infections produce a greater drain upon the system than it would in the case of a normal individual. The weight should be recorded regularly and the diet regulated. It is even necessary to watch the fluid intake of many of these patients since even the effort of eating and drinking is too great for some. The responsibility of the care of the bowels should be placed upon those in charge, and not upon the patient.

The patient appreciates interest taken in his behalf and there is no easier way to obtain his cooperation. He becomes more eager to do things for himself and takes pride in attempting systematic routine. He has less time to think about his affliction and disability. The outlook upon life changes, and a smiling countenance takes the place of anxiety, despondency, and thoughts of suicide. Human, after all, he is still concerned with the pleasures of the world. The State, it seems, ought not to deny him the facilities for diversion and amusement, particularly when even those who have committed crimes against the State can have this privilege.

An institution of the proper sort would also provide opportunity for investigation and research, particularly if its medical staff is selected on a basis of interest in encephalitis as well as on ability. This institution should be the central plant for all State cases, including those found in the municipal hospitals. Since the mental role is so important, these cases would seem to be as misplaced in the municipal hospital as are the psychotic. Procrastination in attending to the necessities and welfare of the sick is neglect and no longer excusable. The nature of the disease is well-known, and so is its scope. witness the large number of victims in our institutions. For that reason it would seem that the problem deserves attention immediately. It will not do to pigeonhole it for some future date.

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DR. SPANKSTER'S SUCCESSOR

Children as young as three years old are being treated for mental disease at the Babies' Hospital in the Medical Center at Broadway and 167th St., New York City, according to Dr. William S. Langford, director of the clinic there. No baby is considered too young for consideration.

About 10 per cent of the child patients at the Vanderbilt Clinic were found to have physical ailments arising from some mental

disturbance, and these are now referred to Dr. Langford.

Refusal to eat, Dr. Langford pointed out, may be due to emotional rather than physical causes. Thumb-sucking, vomiting, crying, nail-biting, continual fighting, fear of darkness or animals, are some of the bugaboos with which the clinic deals.

The result of the treatment Dr. Langford said, is considered successful.

INFECTION OF SOFT TISSUE BY GAS PRODUCING ORGANISMS

Early Recognition by Roentgenograms

Report of Five Cases

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The possibilities of early recognition of infections of soft tissue due to gas producing organisms by means of roentgenograms are fairly well known among roentgenologists and rather widely utilized, while on the other hand, surgeons are not generally aware of the advantages of this procedure and seldom use it. It was widely used during the World War The delay in making the diagnosis from clinical findings unnecessarily jeopardizes the life of the patient and increases the mortality Because this method has such definite advantages over any other method known at present and because of the seriousness of such infections, it seems worth while to briefly detail the procedure and report five cases illustrating its possibilities

It is a well-recognized fact that many bacteria produce gas when inoculated into soft tissue under certain conditions. The group that is of the greatest importance from the clinical standpoint is the Clostridium of which about one hundred members have been classified, most of which are saprophytes Seventeen are pathogenic for some form of animal life and only seven of these are truly patho genic for man 1 Of these seven, we are concerned with only two Clostridium Welchii (B perfringens, B Welchii, the gas bacillus) and Vibrione Septique (B of malignant edema, Clostridium edema tous maligni, Clostridium septicum) The remaining members either are so infrequently found or produce so little gas that they are of little importance in this connection

That gas in soft tissue may be recog mized in a film is well known. This may be due to air introduced by trauma of some sort. If so, the gas shadows will be seen in the immediate vicinity of the wound and subsequent films will show a progressive decrease in the amount, ex-

cept in a case due to pleural injuries and some sucking wounds near a joint

On the other hand, gas produced by in fection tends to increase in amount and spread away from the wound. The roent-genological and clinical picture will vary with the virulence of the organism, the number introduced, the length of time, the amount of soft tissue injury and contamination, and the resistance of the host. If the infection is virulent and involves muscle, the inuscle fibers may be separated, while on the other hand the collections of gas may be more circumscribed.

In 1931 Rhinehart² reviewed the hterature and reported thirty cases. Eleven cases were diagnosed by films on an average of nine and one-half hours after injury and with a mortality of eighteen per cent against the clinical recognition in fifty and one half hours and a mortality of fifty per cent in nineteen cases.

Rhinehart showed that one cc of air injected into soft tissue could be demonstrated in a film and he was able to recognize one case within two and one quarter hours after injury. I was able to demonstrate gas infection in four hours. Experimentally, Strauss' showed that gas could be demonstrated within four hours after inoculation.

Routine films will usually suffice, although care must be exercised that the gas shadows are not "blackened out" of the film On the other hand, sufficient time must have elapsed for the production of sufficient gas to be visible

Case I MK, No 45969, white, female age ten, admitted August 23, 1930, at 5 20 PM on account of a compound fracture of the left radius

The wound was debrided and the fracture reduced at 7 00 PM on the day of admission On the afternoon of August 25 approximately forty eight hours later, the fingers became blue and crepitation was



Fig. 1. Approximately forty-four hours after injury. (Case I). A well-developed case clinically and roentgenologically.

noted in the soft tissue of the forearm A clinical diagnosis of gas gangrene was made and a roentgenogram examination requested This examination showed an extensive infection extending above the elbow (Fig. 1).

The forearm was immediately opened widely and repeated injections of B. Welchii antitoxin were given There was a spread of the infection to the axilla, neck, and anterior thorax, She showed definite improvement by August 29. However, the circulation of the forearm had been destroyed and amputation was necessary. Cultures were reported positive for B. Welchii on August 29. She was discharged on Oct 15.

Case II. R.U., No 51007, white, female, age sixty-eight, admitted December 5, 1929, because of gangrene of the fourth and fifth toes, right foot, of three weeks duration She had been a diabetic for fifteen years

The area of gangrene continued to spread

and on December 12 a roentgenographic examination was made of her foot to determine if ostcomyelitis was present. This film showed gas in the soft tissue of the forefoot and the question of an infection with one of the virulent gas-forming organisms was raised However, the absence of many of the features of a well-developed case lead to little consideration of this

She had a mid-thigh amputation two days later. On Dec. 15, three days after the report of the roentgenogram examination. crepitation was noted in the stump and autopsy revealed an extensive B. Welchii senticemia.

57885, white, Case III. M.A.R. No female, age seventy-one. was admitted 9, 1930, because of beginning gangrene of the right fifth toe. She had been a known diabetic for six to ten years

The gangrene continued to spread and a roentgenogram examination to determine the question of ostcomyclitis was made on March 13, which resulted in a diagnosis of probable gas gangrene. A second examination was requested. This was made twentyfour hours later and still showed gas present of approximately the same amount (Fig. 2 and 3).

A culture made from the gangrenous area on March 13 was negative for gas forming organisms On March 14 a surgical consultant noted the report of possible gas gangrene and admitted the possibility, advising amputation A mid-thigh amputation was done immediately.



Fig. 2 Note osteomyclitis of fifth toe with evidence of gas. (Case III)



Fig 3 Twenty-four hours after Fig 2 (Case III) Note that gas shadows have not decreased

The patient developed a gangrenous area over the sacrum which had become crepitant by March 20. This area was excised on this date, free gas escaping from the wound. On this same date the laboratory reported

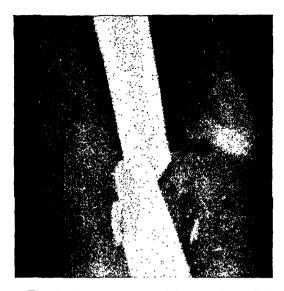


Fig. 4. Five days after injury. (Case IV.) Note shadows of gas in the region of fracture.

a positive culture for B. Welchii from the foot. She developed another gangrenous area over the right buttock with crepitant borders. She died March 29.

Case IV. A.W., No. 87714, colored, female, age five, was admitted on July 29, 1930, because of a compound fracture of left femur which had occurred very shortly before admission.

The roentgenogram examination made immediately after admission showed a fracture through the middle third of the femur. There was no evidence of gas in the soft tissue. The wound was debrided and the fracture reduced.

On August 3 she had a temperature of 103° F, and some pain in the region of the wound. Roentgenogram examination that day showed about a half dozen rounded areas of gas in the soft tissue in the region of the fracture and a diagnosis of gas bacillus infection was made. Her temperature was still elevated the following day. The pain had increased and there was a thick black foul smelling exudate from the wound. A culture was made from the wound. The wound was re-opened and drained. On August 5 the culture was reported as positive for B. Welchii. Her con-



Fig. 5. Four hours after injury (Case V). Gunshot wound. Gas can be seen in the tissues.

dition improved and she was discharged as

well on Oct. 3 (Fig. 4).

Case V. I.R. No. 94932, white, female, age nine, admitted April 9, 1933, at 7:00 P.M. on account of a gun-shot wound of the right thigh which had occurred three hours previously.

A roentgenogram examination made four hours after injury showed a communited fracture of the femur and several areas of gas in the region of the bullet track. A second examination made fifteen hours later showed an increase in the amount of gas, some of which was at a considerable dis-

tance from the wound (Fig. 5).

By 2:30 P.M. of April 10, her temperature had gone up rapidly and her pulse was fast. The wound was swollen, but there was no crepitation. The thigh was opened and drained that afternoon and gas bacillus antitoxin given. She ran a high temperature and was irrational at times until April 12 when she began to improve. At least a part of her condition during this time was due to a serum reaction. One culture was negative She was discharged June 10 as well.

Summary

Five cases of infection due to Clostridium Welchii are reported. One case was recognized clinically and readily confirmed by a roentgenographic examination. Four of the five cases were confirmed by bacteriological examinations; two in four days, one in eight days, and one in two days after roentgenographic examination. Clinically, they were recognized in one case before roentgenographic examination and confirmed in three, seven, and two days respectively.

Conclusions

 Clostridium Welchii and Vibrione Septique are the usual organisms found in virulent cases of gas producing bacilli.

2. These infections carry a high mortality, making their early recognition

imperative.

 These infections can be recognized by roentgenographic examination in many cases before they are suspected clinically.

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APPOINTMENTS BY UNITED STATES PUBLIC HEALTH SERVICE

The United States Public Health Service will consider applications to fill a number of vacancies which exist at the present time and also vacancies which will occur about July first next, for second year medical internes. Any young physicians, not over thirty years of age, who have graduated from a Class "A" medical college and who have completed, or will shortly complete, one year's interneship in an approved hospital are eligible to apply.

The Public Health Service desires to

The Public Health Service desires to secure applications only from candidates who are interested in the Service as a career and who desire to request permission to appear before a board of commissioned officers for examination for appointment as Assistant Surgeons in the regular commissioned corps, on or about the time they will complete a year's service as internes in the Public Health Service.

Appointments effective on and after July I, 1936, to vacancies at Marine Hospitals and the U. S. Narcotic Farm at Lexington, Kentucky, will carry a gross compensation of \$1800 per annum, from which a deduction of \$690 per annum will be made if quarters, subsistence, and laundry are furnished. Appointments to vacancies at

Federal Penal and Correctional Institutions will carry a gross compensation of \$1620 per annum, from which a deduction of approximately \$240 per annum will be made by the Department of Justice if quarters, subsistence, and laundry are furnished. Internes are required to occupy Government quarters whenever same are available. Such quarters cannot be shared by any of the interne's dependents.

Those interested in making application should address an inquiry to the Surgeon General, U. S. Public Health Service, Washington, D. C., stating the date they will be available for duty and more complete information and the necessary blanks upon which to make application will be furnished.

If mankind were to make full use of its present knowledge of personal and public health, the expectancy of life could be increased from its present span of 60 years to 75 years, with a corresponding increase in personal happiness and efficiency, Dr. Dean Franklin Smiley, director of the Cornell University health service, told the Public Health Nursing Association of Rochester at a recent meeting.

FIVE THOUSAND GASTROINTESTINAL X-RAY EXAMINATIONS

A Review and Summary of the Conclusions

E. C. KOENIG, M.D., Buffalo

This review was undertaken for the purpose of checking our work with a desire to improve the methods and diagnostic results.

The cases represented in this group were taken from the files in numerical order over a period of ten years ending 1933.

The patients examined are, namely: (1) Hospitalized—referred to us by Hospital staff. (2) Ambulatory—from pri-

vate practice.

The Medical literature is already filled with articles upon the accuracy and scope of Roentgenology as it pertains to the gastrointestinal tract with comparative results of other diagnostic methods, and surgical or postmortem checking of the x-ray findings. Therefore, I will not attempt to enlarge upon the helpfulness of the x-ray method.

A discussion and summary of this review will be made under the following headings: (1) The average age of the patients. (2) Number of each sex. (3) Pathology demonstrated in each division of the gastrointestinal tract. (4) Period of life and sex in which principle lesions occurred. (5) Report on small groups where surgery or postmortem findings can be checked against x-ray findings. (6) Critical discussion of x-ray reports rendered. (7) Lantern-slide demonstration of typical lesions found. (8) Conclusions drawn from this review with suggestions for better cooperation of patient and referring doctors.

Under the above headings were found:

The average age for the group 43.87 yrs. Females 2,697, males 2,303, total 5,000.

Pathology reported as occurring in the following divisions of the gastrointestinal tract with their frequency.

Esophagus	43
Stomach	777
Stomach	///
Duodenum	652
Small gut obstruction	94
Colon	551
Gall-bladder	1 824
Appendix	1,560
Gastroenterostomies	49

Diaphragmatic					ς.
tract) Eventration of	the diap	hragm			3
Pneumoperitone	um		• • • •	• • •	4

There were 848 cases where no pathology was reported so the number used in estimating percentages is 4,152, arrived at by deducting the negative cases from 5,000.

Malignancy was found in 404 cases, which

gives 9.7 per cent of the entire group.

Combining the duodenal ulcer group with gastric lesions there were 1,429 or 34.4 per cent of the entire group having gastric or duodenal lesions or 70.7 per cent ulcer or nonmalignant lesions and 29.2 per cent growth.

The colon lesions were 551 in number: 75.8 per cent nonmalignant; 24.1 per cent malignant. Colitis 295 or 53.5 per cent of colon group, diverticulosis 123 or 22.3 per cent of colon group, growth (CA) 133 or 24.1 per cent of colon group.

The gall-bladder was reported pathological 1,824 times or 43.8 per cent of group with 302 cases showing gallstones.

Pathological appendix, 1,560 or 37.3 per

cent of group reported.

To recapitulate the numerical frequency of the above lesions in percentage of the entire group:

Pathological gall-bladder	43.8% 37.3%
Combined gastric and duodenal ulcers	
with growth of stomach	34.4%
Colon lesions	13.2%

Our opportunity for obtaining surgical and postmortem checks on findings is limited in this group. Most of the cases never reached surgery and cases that were posted were not large in number. Therefore, we are offering the postmortem and operative findings as a check on this group. Sixty-eight cases of gastric malignancy were operated and posted. X-ray findings in these cases were ninety-four per cent correct.

X-ray findings of colon lesions were found to be correct in ninety-three per cent of cases as checked by surgery and postmortem in forty-five cases.

X-ray findings in gall-bladder cases were found to be correct in 80.9 per cent of cases by use of dye, and 59.4 per cent correct in direct method without dye.

Malignancy occurred in life cycle as follows:

Age	Esophagus	Stomach	Color
Under 30		3	0
30-40	. 0	11	4
40-50	14	30	24
50-60		80	54
60-70		66	32 19
Over 70	. 0	38	19
Total	43	228	133

Malignancy occurred in the sexes as follows, females 145, males 259, total 404.

Gastric ulcers occurred in the life cycles as follows: under thirty, 58; thirty-forty, 67; forty-fifty, 228; fifty and over, 196; total, 549. In the sexes as follows: females 227, males 322, total 549.

Duodenal ulcers occurred 652 times as follows: under thirty, 63; thirty-forty, 85; forty-fifty, 264; fifty and over, 240; total, 652. In the sexes as follows: females 209,

males 443, total 652.

Criticism of Reports Submitted in this Series: (1) The x-ray reports in many instances were too long, not always giving clean-cut information, and while all the facts were given, they were not always clearly defined. (2) The reports giving positive information were usually short and clear. (3) Where lesions were not definitely shown, the reports were likewise uncertain, probably so from the fact that an attempt to explain why the lesions as demonstrated were borderline or possible of more than one interpretation. (4) Reading so many reports, one soon was made conscious of the fact that those under forty years of age did not have pronounced lesions. (5) A clear, definite, well-arranged and short report with a conclusion I feel will be the one of my choice from now on.

Lantern Slide Demonstration of Typical Lesions Found: (1) Calcified fibroid found on flat film of abdomen in routine examina-(2) Murphy-button passing down colon. (3) Air under diaphragm following perforation of gastric ulcer. (4) Gastro-colonic fistula. (5) Gallstone slides, gallbladder dye, deformed gall-bladder. (6) Malignancy of esophagus in the lower third. (7) Small gut distended by gas shown by flat films of abdomen in acutely ill cases representing obstruction of the gut without much inconvenience to the patient. (8) Diaphragmatic hernia showing stomach and colon in part well-up in the thoracic cavity. (9) Hour-glass stomach. Residue in hourglass pocket, same stomach after operation, ulcer having been removed, stomach again returning to hour-glass effect. (10) Carcinoma of the duodenum proven by surgery,

not so reported by x-ray before operation. (11) Diverticulosis of the colon. (12) Colitis, severe grades. (13) Colon (CA). (14) Rectum (CA). (15) Megla colon, ten years of age. (16) Stomach and part of colon in thoracic cavity causing no apparent inconvenience to the patient at the age of seventy-two. At the age of seventy-nine she returned for another examination because physician thought the malposition might account for some of her symptoms as per the newspapers, the upside down stomach is the popular one to have or not to have.

Conclusions drawn from this review can be discussed briefly under the following headings: the patient, the doctor, and the

roentgenologist.

- 1. The patient does not always know what to expect from such an examination especially as to the time required. 2. Has the patient just finished with a prolonged duodenal drainage at the end of a long fasting period? 3. Is the patient excited, in the state of fearful anticipation of what the examination is about to reveal? 4. Has the patient an erroneous idea of the scope of an x-ray examination? 5. Some patients are under the impression that the x-ray will show all conditions without the possibility of error.
- 1. Is the doctor seeking help for a proper diagnosis of his case or is the x-ray a mere routine for the verification of a well-established diagnosis made from other laboratory or clinical procedures? 2. Is the doctor in attendance impatient and seeking a report on the x-ray examination before the films have been fully processed? 3. Is the doctor one who tells the patient how many films are necessary for the examination and just how important the fluoroscopic examination is as compared to the films? 4. I feel that often times doctors have hurryitis when it comes to x-ray examinations. 5. This is a place I believe where it might be appropriate to use the old adaze "Haste Makes Waste."
- 1. Has the roentgenologist been trained as such? 2. Is he capable? 3. Is he cooperative? 4. The best results should be obtained from an experienced, painstaking roentgenologist. 5. The roentgenologist should be willing to see his shortcomings and fully cooperate with the patient and attending doctor to fully realize the best results obtainable from roentgenology. 6. The roentgenologist should consider himself a consultant in a given case and so conduct himself. 7. The roentgenologist must be trained, painstaking, patient, experienced, and fully cooperative.

In conclusion, the review of all these cases has been a long and arduous task but I feel that it has been well worth while if for only one thing, that it will help me to do better work in the future and not repeat the errors taken up in this review,

BUFFALO GENERAL HOSPITAL

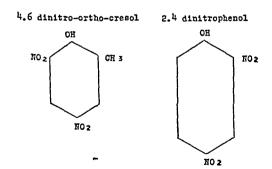
DINITRO-ORTHO-CRESOL

A Metabolic Stimulator and Its Toxic Side-Actions

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For more than a year, medical literature has been flooded with articles about the stimulation of metabolism by chemical substances other than thyroid extract, notably dinitrophenol and its sodium salt. The sale of these drugs has apparently reached enormous proportions because the laity and an inadequately informed section of the medical profession have utilized these substances with results as yet not fully determined. Their toxicology has not been fully worked out and it is possible that there are remote toxic effects beyond the immediate ones so far described. Since it seems altogether likely that other substances more or less closely chemically allied to those now in use will be tried, it appears highly desirable that reports about these unfamiliar drugs be published as soon as possible so that further research, carefully controlled, may be stimulated and so that the profession at large may be quickly acquainted with the drug's toxic properties.

Such a drug is 4.6 dinitro-ortho-cresol first described in this connection by Dodds and Pope in 1933.¹ Its formula is given below with that of dinitrophenol for comparison.



Four successive patients with obesity were given 4.6 dinitro-ortho-cresol in an effort to assess its value in stimulating metabolism. Each was a young vigorous adult in otherwise good physical condition; and the dosage employed to start was .75 milligrams per kilogram of body

weight. Dodds and Robertson² recommended .5 to 1.0 mg. as a safe dose which would increase the basal metabolism thirty to fifty per cent.

Case I. Married female, age thirty-six. Past history was irrelevant. She had been obese since childhood and her mother and two sisters were markedly overweight. Her weight was ninety kg. (28 kg. in excess of normal). Basal metabolism, -3, pulse 70, blood pressure 125/72. She was put on .75 mg. of 4.6 dinitro-ortho-cresol (Eastman Kodak) per kg. of body weight, administered in gelatin capsules since the drug is effective when given orally. She was instructed to follow a low fat, low calory, high protein diet but failed to follow instructions, and reported that her diet during the next two months was essentially that of the five years previous. For the following eight weeks there was no change in pulse or blood pressure and at the end of that period the patient weighed 90.3 kg. She reported no side-actions of any sort except slight headache and lassitude.

During the ninth week the dose was increased to 1.0 mg. per kg. of body weight. She then complained of a sense of great heat and marked palpitations interfering with sleep. The evening temperature was then usually 100.2° F. and at the end of ten days the patient had lost one kilogram. On the eighth day she reported that her sclerae were green. She was instructed to reduce the dose by half and the color disappeared, only to reappear when the dose was again increased. The sclerae were found to be greenish but there was no evidence of true jaundice. No bile was present in the urine and the icteric index was normal. Dodds and Robertson² reported a similar phenomenon in their report, also apparently not due to bile pigments. On the third day following, the patient, without consulting the physician, increased the dose to 1.5 mg. per kg. of body weight and immediately noticed a maculopapular, urticarial eruption, slightly reddish in color, involving both deltoid regions, the upper anterior chest, and both upper axillae. At this time the weight reached eighty-nine kilograms, a loss of 1.0 kg. while under treatment for eleven weeks. The drug was discontinued immediately on the appearance of the rash and no effort was made to continue with it on account of the apparent toxicity. Pulse and blood pressure were never raised throughout treatment

Case II Male, single, thirty years of age, weight eighty two kg (12 kg in excess of normal) Basal metabolism was +6, pulse 62, blood pressure 130/84. The same initial dose as in the above case was given 75 mg per kg of body weight He complained it once of great heat, fatigue, and fullness of the head His temperature was 101° I each night and he was extremely uncomfortable on hot days. At the end of two weeks, basal metabolism was 15 and weight 819 kg. The diet throughout the entire course of treatment consisted of 1800 calories per day including 100 grams of protein Dosage was then decreased to 5 mg and continued for four weeks, at the end of which time the basal metabolism was +12 and the weight was eighty one kg During the last week the temperature rose to 1004° F each afternoon and the patient noticed that there was a transient greenish pigmentation of the eves He felt so uncomfortable that treat ment was discontinued at the end of six weeks

Case III Male, single, thirty-four, weight ninety one kilograms (21 kilograms in excess of normal), basal metabolism -4, pulse 70, blood pressure 110/65 The usual mittal dose was ordered On the afternoon of the second day, the temperature was 1008° F He felt hot, tired, and slightly dizzy On the third day there was a distinct interior tint to the sclerae but the icteric index was normal and there were no bile pigments in the urine The drug was discontinued for two weeks and then resumed with a dosage of 35 mg per kg of body weight On the fifth day theierster the basal metabolism was zero and on the seventh day a greenish tinge to the sclerae was again visible. The patient complained bitterly of perspiration and great fatigue during this time and of the com ments of his neighbors on his "jaundiced appearance" The drug was then discontinued

Case IV is still under treatment having been started at the same time as case III and receiving the same initial dosage. The patient has lost about 6 kg per week for the past six weeks with no untoward symptoms except a sense of fatigue.

The author might include himself as a fifth case having taken for experimental purposes 10 mg per kg of body weight each day for four weeks while on a diet of 2200 calories. There was no unfavorable reaction except a duly rise in temperature to between 1008° and 101° Γ a sense of great heat fullness of the head, and excessive perspiration. There was no loss in weight

Comment

It is apparent from a study of the first three cases that the margin of safety between the therapeutic dose of this compound and the toxic dose is very shin indeed. As a matter of fact, in these cases it was impossible to raise the general metabolism sufficiently to cause a reduction in the body weight without producing side actions serious enough to render further treatment madvisable.

The most striking of these side effects was the pigmentation of the sclerae, to which attention has already been called by Dodds and Robertson. This was apparently no relationship to jaundice, as bile pigments were not discovered in either the blood or the urine. The effect of the drug on the liver, if any, was not determined in this series of cases.

The toxic symptoms therefore may be summed up as follows (1) greenish pigmentation of the sclerae, (2) subjective sensations of heat, (3) fatigue, (4) palpitations and dizziness, (5) hyperpyrexia, (6) excessive perspiration, (7) urticarial eruption. It is noteworthy that neither the pulse nor the blood pressure were reliable guides to treatment.

A fourth case is reported in which satisfactory results were obtained so that it is possible that a larger series of cases may show a much smaller percentage of toxic reactions. Before such cases, carefully controlled, are reported, it would seem wise for most doctors to treat obesity by other methods which have given more satisfactory results.

The dangers of self-medication, particularly because of the publicity recently given to this group of drugs, are tremen dous Case I illustrates how difficult it is to exercise control over even those cases which are under medical supervision. The present educational campaign against obesity should be continued but the public must be warned against self-medication without physical examination Even then, reduction should be accomplished only by moderate exercise and avoiding excessive eating unless carried out under the supervision of a physician Self-sacrifice is at the beginning difficult for most patients especially those who have acquired over a period of many years the habit of overalimentation but it is a small price to pay

and a safe insurance against the dangers of new and comparatively untried drugs.

We should not fail to note that a death due to over-dosage from this drug (marketed as Dekrysil) has already been found in England and reported in the foreign correspondence of the Journal of the American Medical Association.3 Gordon and Wallfield have recently reported a case with toxic reaction to this drug.4

Summary

- 1. Five cases treated with 4.6 dinitroortho-cresol are reported with satisfactory weight reduction in only one case. Toxic reactions were produced in three cases.
 - 2. This compound should be used only

with the greatest caution until further reports are available.

3. Diet and exercise have proved so successful in the treatment of obesity that the use of drugs should for the time being be discouraged. 555 OCEAN AVENUE

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THE MYSTERY OF COUNTRY PRACTICE

How to get started in a country practice is a puzzle that formed the subject of an intriguing talk by Dr. Arthur V. Wortman of Curtis, Nebraska, a few weeks ago before the Nebraska State Medical Association. He remarked that the first hurdle is to get patients to submit themselves as subjects. Just what attribute will accomplish that end is a mystery. Why many men of manifestly mediocre ability have offices full of waiting patients, while others eminently better educated and qualified are waiting for business is not explained in any textbooks. One commentator has classified the elements of success as 90 per cent personality, 5 per cent ability, and 5 per cent accident; others give accident a little higher rating.

Advertising is a big element in the building of a country surgical practice. Cure the most prominent citizen of the community of a hopeless case of proliferative arthritis and your bread is buttered for you; open a thorax and closes a stab wound into the heart and patients will beat a path to your waiting room-of course they will forget to pay you, but they will come nevertheless. Operate on an "upside-down stomach" successfully, and get several columns of favorable press notices, and your reputation is made more than merely a local one.

Wherever the country doctor goes he is critically observed, he is the subject of much conversation, the object of many remarks. If he is successful, nearly half of the remarks are complimentary, or at least not derogatory. If he is careless in dress or conduct, he will still have some friends and patients who respect him, if he is foppish or sporty he will have fewer of them. He must follow a conservative course. His city brother can be more independent. People look upon him like we all look upon Cimex lectularius, or the common bedbug. bedbug looks much like any other bug, but it is the way he makes his living that irritates us.

To a select few of his patients the country doctor is a Jenner, a Koch, a Semmeleis, a Lister. To most of them he is just "Doc." To another minority he is a Judas, a Catiline, a Capone, a Dillinger. The city doctor does not enjoy this intimacy.

There's a moral for every physician in the following experience described recently by a Columbus physician and printed in the Ohio State Medical Journal.

Tony, employee of a steel mill, had made no less than a dozen calls at Dr. A's office for treatment for boils.

On the day Dr. A pronounced Tony well and able to return to work, the following dialogue took place:

"What I own you, Doc?" asked Tony, extracting a roll of bills from his pocket.
"Well—Tony—let's see—well—Oh about

-well let's make it \$10", replied Dr. A, hesitatingly.

"Oh, Tony, let's see-Oh-well-let's make it \$10", mocked Tony, tossing a bill on the desk, and continuing:

"Doc, why not \$20; \$30; \$40; \$50; \$100, lika that?

"Why don'ta you talka like you mean it? "Why you no maka me feel you sava my

"Why you no maka me feel you oughta get bigga money for good work?

"Doc, don'ta maka man feel you worka cheap; maka him feel you good doc, geta good price; worth more you ask.'

To Tony goes the medal for a bit of homely philosophy which every physician would do well to memorize.

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EDITORIALS

Unfavorable Signs

Even friends of the Federal social security program are beginning to question the wisdom of the national old age and unemployment insurance act in its present form. Administrative details are still in an embryonic stage but it is already apparent that the execution of this law will be surrounded with voluminous red tape requiring the creation of an extensive bureaucracy. The cost of this will necessarily come out of the pockets of industry, labor and the consuming public; and every one must pay, whether he stands to benefit by the measure or not.

Besides endangering the standards of medical care, the adoption of compulsory health insurance would intensify the objections raised against the old age and unemployment laws. It would mean still higher taxes and living costs, the extension of bureaucratic control over American life and, to an even greater degree than current social security legislation, taxation of the entire nation for the benefit of a small percentage of the people.

While it is too early to pass judgment on the old age and unemployment insurance act—before even it is in operation—there are many indications that it will fall short of the hopes held out for it. Experienced actuaries say that the funds obtainable at present rates will be insufficient to provide the promised benefits

under adverse conditions. There are more serious signs that the law may defeat its own purpose in the avowed intention of several large employers of labor to increase mechanization of their plants in order to diminish payroll taxes. Additional levies for compulsory health insurance would spur the replacement of men by machines.

It will take a number of years for the economic organization of our society to adapt itself to the new conditions imposed by obligatory old age and unemployment insurance. At this time it is not possible to predict when the adjustment will be completed or whether the benefits will be commensurate with the costs. Until the nation has had an opportunity to evaluate the social security measures already in force, it would be high folly to add compulsory health insurance to its burdens and destroy the system of private medical practice which has functioned successfully in good times and bad because of its freedom from political and industrial control.

Stop Them Now

A sharp revival of chiropractic activity all over the state lends credibility to a rumor that the spinal manipulators are about to launch another campaign for legislative recognition. Past experience has demonstrated that the chiropractors are masters of legislative lobbying. With millions at stake, they are willing and able to spend enormous sums in propaganda for their cause.

The time to stop a possible chiropractic drive is now, before they have had time to organize a legislative bloc in their behalf. It is a number of years since Albany has had a chiropractic licensing bill up for consideration, and some of the newer members of the Legislature have had no occasion to ascertain the falsity of the claims made for this cult. Some old timers will remember the anatomical demonstrations in committee which effectively exploded the theory of chiropractic. However, the defenses of the past cannot be relied on for the present; and physicians in every part of the state should immediately communicate with representatives at Albany to warn them of the consequences of recognizing an irregular cult with no sound basis in scientific fact or principle.

The Medical Practice Act of this state has been widely heralded as an example of the educational safeguards with which enlightened law-makers surround the practice of healing. There is nothing in the theory or methods of chiropractic that could be incorporated in the curriculum of an authentic school. If legislative recognition were granted to this irrational system, it would create an irreparable breach in the educational defenses of medicine through which other dangerous and worthless cults could easily follow.

Comparisons Are Instructive

There is an old gag which was current some years ago which we dare to repeat. An ambitious rooster, having wandered a bit from his fireside, watched a female ostrich with wonder and amazement, when she clucked her notice to the world that she had laid an ostrich egg, he stared and stared at its size and extent. Wanting to do something, desiring that his own females might at least *try*, he crowed and called them around him, and said, "Far from criticizing you, ladies, I

simply want you to look at what others are doing! Can you not try to do likewise?"

The story has point when one listened to the inaugural address of Dr. Charles E. Farr, when he was inducted as President of the Medical Society of the County of New York. Commenting on the problems presented to organized medicine for solution, he deplored the limited financial contributions which the members of the Society paid to the general funds to enable men to give their time and best efforts toward achieving results desired by all of We pay but a small yearly item for the large amount of work needed. Quoting from labor units. Dr. Farr said that a hod-carrier earns \$7.40 per day. pays \$24 a year dues, plus \$0.75 for each day he works. Assuming that he works 200 days a year, he earns \$1,480 a year, and on this basis he would contribute \$174 to his organization for the protection of a daily earning of \$7.40. A bricklayer draws \$13.00 per day. He pays to his organization \$48.40 per year dues plus \$1.50 for each working day. Assuming that he works 200 days a year, he will earn \$2,600.00 a year and from this he pays to his organization a total of \$348.00 for the protection of that income. "How pitifully insignificant is the \$10.00 dues paid by the doctors of this State to their State organization for the protection of their economic security," says Dr. Frederic E. Elliott, the Chairman of our Committee on Economics, in commenting on these figures.

When we consider that the workmen's compensation law will demand a real man's best labors; when we begin to envisage other activities in which we must engage to protect the public against itself and for the general welfare, and when it is realized that the haphazard work of men busy in private or institutional medical practice is inadequate and inefficient to meet the needs which the present era has brought on us, and which will impose increasingly heavy demands, we are unabashed in calling upon the profession "to look at what others are doing"

and to echo the remark, "Can you not do likewise?"

It is time to consider our needs, enlist an adequate working force, while remembering that the "laborer is worthy of his hire" and make financial provisions to meet the situation.

The Waldorf-Astoria Session

The plans for the scientific meeting of the State Society are rapidly taking shape.

Dr. James' exhibit, which comes to us from the Army Medical Museum in Washington, is of unusual interest. Amebic dysentary is of importance even to those of us who are not practicing in the tropics.

The first day's session of the section on Medicine will be devoted to a Symposium on Arthritis, the speakers being from the leading group of those particularly interested in the treatment of this important disease group. The Wednesday session comprises a group of papers on the most recent progress in endocrine therapy.

A guest speaker will appear in the Section in Obstetrics; Dr. H. H. Ware of Richmond, Virginia, who will speak on "Full Term Uterine Pregnancy."

A group of researchers in Philadelphia headed by Dr. L. G. Rowntree for a considerable period of years has been studying the role of the thymus and the pineal glands in growth and development. Their work has reached such practical conclusion as to permit them to make an outstanding exhibit at the 1935 meeting of the American Medical Association, winning the silver medal. Dr. Rowntree will present some further developments of this work before the Pediatric Section, his topic being "The Role of the Thymus Gland in Growth and Development, an Experimental Study." This paper will be correlated with a scientific exhibit. Another endocrine paper "Hypogonadism and Cryptorchidism" by Dr. M. B. Gordon of Brooklyn will be correlated with a scientific exhibit.

The new Section on Industrial Medi-

cine, under the direction of Dr. Hitzrot, contemplates devoting their first day program to the industrial medical question of the day, Silicosis; and the April 29 session to dermatoses, infections, tendon, nerve and bone injuries of the hand, the industrial worker's best tool and therefore the industrial surgeon's greatest responsibility.

The entire first day in the Dermatology Section will be devoted to the different manifestations of allergy, going into the multitudinous causes thereof, food, fungi, drugs, including the relation of general allergy and general disease conditions to skin manifestations. A study on experimental work on bismuth by mouth in the treatment of syphilis will be presented by Dr. Charles R. Rein and Dr. Marion Sulzberger of New York.

The closer and closer interrelation of the x-ray with clinical diagnosis is shown by Dr. L. W. Gorham of Albany in his paper on "Differential Diagnosis Between Coronary Occlusion and Pulmonary Embolism" in the Radiology Section Program. Studies of the bone manifestations of Hodgkin's Disease by Dr. Samuel George Schenck of Brooklyn will be accompanied by a scientific exhibit, and other exhibits will be correlated with the program.

In the Public Health Section, Commissioner Parran of the New York State Department of Health will speak of the League of Nations Public Health programs as contacted by him in his recent visit to Geneva.

As the details become completed we shall refer to this program again. We are indeed fortunate in the matter of the Chairmanship of the Committee on Scientific Work. Dr. William A. Groat has merited the confidence reposed in him and has accepted his responsible post, as a job to be well done. Say what you will of other factors which draw and interest the medical profession, but one fundamental must never be lost to sight. The profession is anxious to learn more of medicine, and wherever a program is provided that gives them what they think

they can translate into practice, there they will come.

The program offered augurs for a well attended and enthusiastic meeting in New York City in April.

· Distinguished Guests

Among the distinguished guests who will take an active part in the annual session of the State Society in April, is Lord Horder of Ashford, K.C.V.O., M.D., D.C.I., F.R.C.P. of England.

Baron Horder is a man of exceptional attainments and interests. He is senior physician to St. Bartholomew's Hospital in London. He is the Consulting Physician of the Cancer Hospital. He served his country during the World War in the Army. He has held many positions of honor and executive grade. He is an ex-president of the Harveian Society of London: President of the National Birth Control Association; Executive Chairman of the Advisory Scientific Committee, British Empire Cancer Campaign. Member of the Governing Body of the British Post-Graduate Hospital. President of the Medical Society of London, and other societies and hospitals.

His work on clinical pathology in practice is known here, in addition to which he is a contributor to contemporary English medical literature.

Lord Horder will address the general assembly of the Society and also the section on Medicine.

We are glad to extend welcome and assure him a gracious reception while among us.

Another distinguished visitor is Dr. William M. James of Panama. He is connected with the research going on in both the Gorgas Memorial Institute and the Matias Hernandez Asylum. Dr. James brings us the latest on the topic of amebiasis. The subject will be dealt with as a form of colitis, demonstrating the necessity of treating this infection as a colitis. The reasons for the failures of many so-called specific treatments will be shown, and the reasons underlying the

relapses which occur will be explained. Collaborating with him, in both demonstrations and explanations will be Dr. J. M. Lynch and Dr. Hakaussn, proctologists. Dr. C. M. Johnson, the consulting protozoologist of the Gorgas Memorial Institute, will show an almost fool proof method of stool examination, and Dr. Getz will demonstrate pathology.

In telling of these visitors and indicating what they will do, it is not our intention to elaborate the scientific program but rather to indicate how worthwhile, from a standpoint of scientific study value, the ensuing meeting will be.

Status of Short Wave Therapy

Physiotherapy has been employed as a therapeutic agent for countless centuries. The beneficial effects derived from the massage of sore muscles, the bathing of wounds, and lying in the sun were evident to the earliest humans. In recent years, the impetus attained by the immense amount of research concerning the value of light and heat in the treatment of disease has disclosed new physical measures, the therapeutic values of some of which are not understood thoroughly as yet.

The newest of these are the short and ultra-short wave diathermy. The former comprises wave lengths ranging from twelve to thirty meters. It has been definitely determined that in their clinical effects, these wave lengths differ but little from ordinary diathermy.1 The ultrashort waves which are used medicinally have wave lengths which are below twelve meters. The method of applying the heat from the ultra-short waves and the range of clinical application differ definitely from diathermy. Full recovery without recourse to surgery has been reported from the use of ultra-short wave therapy for carbuncles, empyema, pulmonary abscess and acute pelvic inflammation.2

¹ Kovacs, R.: Electrotherapy and the Elements of Light Therapy, 2nd Ed., Phila., 1935.

² Turrell, W. J.: Short Wave Therapy, Arch. Phys. Therapy, X-ray and Rad., 16:5, 1935.

Despite the encouraging clinical reports, short wave therapy is still in its experimental stage and should remain, for the present, strictly in the province of the The regulation skilled psysiotherapist and the control of dosage is still a crude procedure since the milanimeter will not show the amount of energy which is flowing through the patient. The operator of a short-wave machine has no definite means of judging when the skin and deeper parts are being heated excessively Consequently there is great danger of subjecting the patient to skin burns, hot spots, and coagulation of subcutaneous tissue 3 Furthermore, there is no definite standard for the manufacture of a shortwave apparatus Until further clinical and experimental studies have been made, the employment of this type of physical therapy should not be undertaken by anyone not trained in the use of physical agents

Trichomonas Vaginitis. A Venereal Disease?

The trichomonas vaginalis, a flagellate protozoon which is capable of producing a protracted vaginitis, has been the subject of much study in late years. The disease it causes is characterized by a profuse, foul, greenish discharge, pruritis vulvae, and intertrigo. The protozoon is easily identified on smear.

There has been considerable speculation as to why this ordinarily harmless parasite, which frequently is found in the normal vagina, should assume sudden pathogenic activity. According to Allen, Jensen, and Wood¹ a symbiosis must occur between the trichomonas and a green-producing streptococcus before the former will assume virulency. The streptococcus they have isolated shows a different electrical grouping from the other streptococcus which normally inhabit the vaginal tract.

Of still further interest are the results obtained by Allen et al from their studies of the male contacts of several women who had a trichomonas vaginitis. Seven had a chronic prostatitis, and from the prostatic secretion they were able to isolate a streptococcus which had the same electrical reaction as the streptococcus found in the vagina. In six instances the trichomonas itself was found in the prostatic secretion. Nothing was found in three.

These observers feel that trichomonas viginitis and prostatitis are to be regarded as venereal diseases and that sexual intercourse is the most likely means of transferring the infection. The evidence thus far is too scant for a complete acceptance of their conclusions, but their findings suggest further study into the nature of trichomonas infections.

Oxygen Administration

The usefulness of oxygen as a therapeutic agent in pneumonia is acknowledged. The oxygen tent and the equipment necessary to administer it leave much to be desired. The most important item in the set-up, of course, lies in the necessity that there be a proper oxygen concentration within the tent and that there be the minimum amount of leakage.

A number of oxygen tent manufacturers have sold tents alleging that it is unnecessary to test the oxygen concentration provided a steady flow of between seven and twelve litres per minute is maintained. But faulty administration may nevertheless be present. In some instances the tentage leaks to a degree that even if the recommended flow is established, there will still be a concentration of less than thirty per cent.

The remedy is apparent. The physician's prescription should not call for the application of an oxygen tent, but for a given concentration of oxygen available to the patient. The use of a nasal catheter, or the introduction of a catheter into the oral pharynx should be ordered for lesser concentrations. The oxygen content of

⁷ Krusen, F H Short Wave Diathermy, J A M.A 104 1237, 1935

¹ Allen, E Jensen L B, and Wood, I H Amer J Obs and Gyn, 30 565 and 30 736, 1935

the tent in use should be tested and the concentration employed noted. Authorities have declared that at the present time it is safe to say that over ninety per cent of the oxygen tents in use in the country are not tested for oxygen concentration.

The factors which we have stressed become still more important when heliumoxygen is used therapeutically. There is need for the determination of the amount of helium-oxygen atmosphere in the tent.

We feature these facts because of their timeliness in the pneumonia campaign which is going on, and also because we are desirous of having oxygen therapy properly administered. To rely on a therapeutic agent, and have its usefulness negated by failure to administer it properly is hardly good medicine.

We hope that some one will develop a method of automatically recording the oxygen atmosphere in the tents while they are in use. Two things would thus be accomplished. It would note and also prevent waste, and secondly, our patient would receive the dosage which the physician prescribes for him.

CURRENT COMMENT

HENRY FORD, interviewed by Samuel Crowther in the Saturday Evening Post of February 1, 1936, speaking on "The Only Real Security," among other things said, "Our forefathers came out of Europe to pioneer in a new land, not because the old country gave no further opportunities for pioneering but because the working of customs and governments had denied to the common man the liberty to use the opportunities that were about him. We here have had the liberty to pioneer. Our great pioneering has not been in the covered wagons, but in the laboratories and workshops and in better ways of living together as a human society." "Today, as always, there are those who believe that the mental. as well as physical map has been completedthat we know all we are ever going to know and that our job is henceforth to rearrange and reorder what we already have. That is the Old World spirit. That is the surrender of those who fear to think, to plan and to try. We left all that behind more than three hundred years ago. We are not willing to saddle America with Europe's fallacies and failures. And it is remarkable

how many of them have been offered for our acceptance."

RECENTLY HARMAN, in the British Medical Journal of October 6, 1934 (supplement) studied the question as to the efficacy of opticians' and optometrists' examinations of the eyes of persons coming under their care.

The report, based on 10,085 cases, showed that sixty-four per cent had errors of refraction only. Twenty-nine per cent had in addition "other eye conditions," and nearly six per cent had no errors in refraction at all. The National Ophthalmic Treatment Board's figures were also studied. This Board showed that many patients did not require glasses at all. There were 68,044 patients examined by 821 physicians. Slightly more than six per cent did not require glasses.

Harman concludes "that opticians did not recognize the defects present in the eyes of the patients seen by them, or if they did recognize them they did not report them for medical examination. * * Patients who go to opticians to have their sight tested do not get what they ought to get."

In view of the efforts of the optometrists in this State to extend their sphere of activity this study should prove interesting to our profession, and to the public.

FROM THE REPORT of the Committee on Economics of the Medical Society of the County of Monroe, and the Rochester Academy of Medicine, as published in the January, 1936, issue of their Bulletin, we find the following: "The trend in medical economics continues to be an attempt to hold the advantages of individual private practice, and to obtain the advantages of socialized practice-that is, to maintain the right of the sick and wounded to freedom of choice of physician; to wit, the new medical chapter in the compensation law; and, at the same time, to establish the physician's rights to remuneration for his services rendered those who cannot pay for it themselves. Although there is a definite improvement in economic conditions, there still remains a great demand for service, and a great many physicians ready to render it, but the one does not adequately support the other. This condition is not limited to the field of medical economics. The farmer has suffered a sixty-three per cent reduction in selling value of produce, but has reduced his quantity production only six per cent. In other words, he is doing about the same amount of work he did fifteen years ago, for half of the return he then had. The manufacturer, on the other hand, has reduced the prices of his products only six per cent,

but has reduced his production eighty per cent. In other words, he has fixed his selling price at a profitable level and has held it there by creating a demand for his

product

Medical service is a fundamental necessity of life. Price fixing, by refusing to render service except for a price is impossible. Our profession is bound by laws of human necessity to render service in bad times as well as in good. An immediate solution of our economic problem lies in the wide-spread payment of adequate wages to the employed group. If people earn money, there are enough who pay to keep us going. We all go up together."

THE EDITOR of the St Louis County Medical Society Bulletin of January 17, 1936, comments on the recent broadcast over the Red network of the National Broadcast ing Company when the question of State Medicine was debated. The editor's comments are particularly addressed to Mr Bower Alv an educator who took part in the broadcast and likened the proposed socialization of medicine (State Medicine) to the State's control of education pertinent examples from the local field where he evidently is at home and is cognizant of conditions, Dr Clyde P Dyer said, wonder if it would not be more fitting for a public educator like Mr Bower Aly, who was one of the debaters to debate the subject, 'Resolved that the several states should enact legislation providing for a system of complete educational service available to all citizens at public ex

"I would like to ask Mr Aly if he recognizes and is making any real effort to enable the many millions of boys and girls who would like to continue through High School, College or University Under the present educational system, education is not free or available at state expense but must be paid for by the individual or their parents in addition to the school taxes that they now pay This is true not only in the University of Missouri where there is tuition and books and board that cost the individual \$400 or more a year, but even for high school education. In St Louis County and throughout the state of Missouri there is at present a most inadequate system as well as inadequate delivery of the present system of education. Why not recognize this great need as it is very closely connected with what Mr Aly later said was the really basic reason 'That we have been lacking in America a belief in the dignity and worth of American citizenship' And again later he said 'Oh my friends, we Americans must develop for ourselves a new idea of American citizenship. Education and more education will develop more American citizenship, and state medicine will not be a

contributing factor

'To quote from the St Louis Globe Democrat of December 15, 1935, regarding education in St Louis County In 1928, when Supt Bascom of the Bryless School District started a minth grade with eleven pupils in one of the grade school buildings a state high school inspector came looked over the situation shook his head dolefully and expressed grave doubts of the advisability of trying to extend the educational opportunities of the district

"The Bayless School District, six miles square, with a present school census of approximately 700 children, is one of the oldest in the state antedating the civil war

'It was a heart breaking choice in former days when I (Supt Bascom) had to select the two children from the eighth grade who were eligible to take the competitive examinations for free high school scholarships offered in St Louis County

"There were so many who ought to have had the same chance. And sometimes those who won such scholarships were unable to

take advantage of them?

And this is the educational situation in our prosperous well populated country, which has just built a new high school that

it is justly proud of

What it is out in the rural districts of the state I must leave to your imagination and the political set up of educational men of Missouri are to blame for allowing it to continue. What a work for Mr. Aly and the other educators to clean up, as this situation is not only in Missouri but it is in every state and school district of the United States, after mun, many years of effort toward education.

"There is need for better delivery of adequate medical service to all people but state medicine will not deliver it as well as the present system will if allowed to adjust itself to the times and people of various

localities

If Mr Aly would devote his time and efforts to lifting education out of the very unsatisfactory condition that it is in, he would be doing work that he is educated for pud for and is or should be concerned with But he also might know that the political set up of the educational system in Missouri is such that it is not possible for him to change or correct all of these things so that adequate education would be available to all citizens at public expense but medical men do not condemn the entire educational set up, because of its inadequacy or inefficiency

"Neither would it be possible for a few socially-minded practitioners of medicine, economists and professors to set up a system that would not be full of 'political dictation,' inequality of service as at present, wasteful taxation, increased death rate and many as yet unknown evils.

"Mr. Aly would resent a small group of less than one per cent of the educators trving to tell the other ninety-nine per cent that the present educational system was entirely wrong and that they wanted to throw the system aside and start a new system modeled after Russia, or other European Countries this democratic country where the

majority usually control.

"To summarize I would say that it seems there is so much to correct in the present educational system that Mr. Aly and our educators would be doing the greatest service to the greatest number by correcting the evils of inadequate education at present under public expense in part, and not interfering with the medical problems of which he and they know so little."

THE EDITORS OF Today, in the issue of February 1, 1936, say, "In 1900 there were only 262 beauty shops which did a business of \$7,000,000 a year, now there are 30,000 and they gross \$200,000,000."

Which is a thought provocative enough. Each can think it out for himself when he

considers medicine.

THE STATE CHARITIES AID ASSOCIATION publishes in its January News the recommendations of the Wardell Commission. The report has been submitted to the legislature with the endorsement of Governor Lehman.

As to State policies and reorganization, the principal recommendations were:

1. The State should adopt a permanent policy of paying a substantial part of the cost of home relief administered by the local governments. For the year 1936, the State aid should be at least forty per cent and should be de-termined by the Legislature from time to time in light of future conditions.

2. The allotment and control of State funds should be placed in a reorganized State Department of Social Welfare with power to exercise the necessary supervision and control over

expenditure of State funds.

3. After July 1, 1936, the State Commissioner of Social Welfare should be appointed by the Governor instead of by the State Board of Social Welfare, and should be given full administrative responsibility for the functions placed in the State Department of Social Welfare.

4. The present Board of Social Welfare, which is now the administrative head of the Department of Social Welfare, should, on July 1, 1936, be replaced by a non-administrative

Board, appointed by the Governor, with the advice and consent of the Senate. Instead of twelve members appointed for eight-year terms, on a geographical basis, the Board should consist of eight persons appointed for overlapping terms of four years. The Board should make the rules and regulations in respect to the public assistance administered under the supervision of the State Department and for all private institutions and agencies now subject to its rules. It should carry out its constitutional function visitation and inspection of charitable, eleemosynary, correctional and reformatory in-stitutions. It should act as a board of review to decide appeals by any officials or agency from an administrative ruling or decision of the Commissioner of Social Welfare.

5. Contingent upon the enactment into law of the preceding recommendations, the powers and duties of the T.E.R.A. in relation to home relief should be transferred to the State Board, and the State Department of Social Welfare on January 1, 1937. The T.E.R.A. should be continued until February 15, 1937 in order that the 1937 Legislature may determine whether the provisions of the Wicks Act, authorizing work relief, should be continued, and if so, whether such functions can best be administered by a temporary agency or a permanent State Department.

6. State aid for home relief and old age relief should be provided by advance grants to the localities with a comprehensive post-audit by State authorities, instead of the present cumbersome and unwielding system of reimbursement requiring submission to the State Office of vouchers and financial documents relating to each individual relief order or payment.

Recommendations as to Local Welfare Organization.

1. The relief functions of the towns should

be transferred to the County.

2. All forms of relief administered by the County should be paid for by the County without a charge back in the taxes levied on the place of settlement of the recipient. Funds for each form of relief should be raised by taxes levied only in the area in which the County administers that relief.

3. The County Commissioners of Public Welfare should be appointed by the Board of

Supervisors for a term of four years.
4. The County Commissioner of Welfare should have suitable offices accessible to the public and usually not located at the County Home. Because of the marked increase in the responsibility of the County Commissioner, a Superintendent of the County Home should be appointed, and the County Commissioner should not be required to live at, or on the premises of the County Home.

5. Salaries of the Commissioners of Public

Welfare, both city and county, should be adjusted in many localities in order to attract

persons of suitable qualifications.

ACCORDING TO THE New York Sun of January 21, 1936, Daniel C. Roper, addressing the National Retail Dry Goods Association, said: "After declaring that the profit and loss system of American business must be maintained and must be assured general channels of constructive progress," Mr. Roper said that 'poor housing for a nation such as ours breeds discontent; good housing fosters social stability."

"A home building program to assure activity over a ten-year period was advocated by Mr. Roper as he drew a picture of mass production of dwellings comparable

to the motor car output. He said:

From the viewpoint of social objectives, we cannot undervalue the importance of placing as many American families as possible in homes which they can purchase for a reasonable price and maintain through a fifteen or twenty year period of equitable financing.

"'Pride in home ownership and the cultivation of the virtues enhanced by that environment is a sine qua non to the safety of our form of government and sustained

happiness of the people."

THE EDITORS OF Today of January 25, 1936, among other things say, "The search of frightened money for a cyclone cellar is a thing of the past, but the accumulation of savings through thrift has not begun on an important scale. We deduce this from the condition of the mutual savings banks of New York State, which were once, and probably still are, an excellent index. Their deposits at the beginning of 1935 were \$5,153,357,083, and at the end of 1935, \$5,186,547,393. The increase is \$32,190,310, but that is \$100,000,000 less than the deposits would have grown to if they had merely been left undisturbed, at 2 per cent compounded quarterly. Therefore, net, no new money has been deposited either by people of means who used mutual savings banks as a kind of hoarding device during the depression, or by the thrifty wage earners whom the system is intended to serve."

THE Saturday Evening Post of January 25, 1936, carries the following editorial on

Compulsory Health Insurance:

"Many social workers, actuated by the best of motives, have long been pressing for compulsory health insurance, with free medical attendance included. It touches our pride as well as our compassion to hear of folk in the richest country in the world without proper care when they are ill because they are too poor to pay for it. These feelings are intensified when we are told that nearly half of our population gets no medical attention whatever.

"If these hardships could be done away with by setting up a system of state medicine, that would be a powerful argument in its favor. Unhappily, the experience of nations which have given such systems a thorough try-out is anything but encouraging.

"According to a study of conditions in England, in 1933, made by the London Times the time lost through sickness by insured workmen averaged twelve and onehalf days per man yearly, an aggregate of twelve months' work for 558,000 persons. Before compulsory insurance went into effect, the loss was only nine days: the increase under the insurance scheme being more than thirty-eight per cent. Germany has had half a century of experience with insurance against sickness, and in those fifty years the time lost through illness has trebled. The comparison with American figures is striking, for the average loss of time by our own workmen is only about six and one-half days a year, and the figures have been stationary at that level for a quarter of a century.

"We are indebted to Dr. Frederic E. Sondern, president of the Medical Society of the State of New York, for a well-rounded study of the whole matter. To quote his own words: 'We are asked to occupy our lives with false gestures of administering good medical care which the conditions will not allow us to give; we are asked to make ourselves a part of a gigantic bureaucracy and play politics with human

lives.'

"The most significant paragraphs of Doctor Sondern's study are those which deal with our growing reliance on group action. He, like most Americans, believes that our national destiny lies in individual rather than in collective efforts, and he does not fail to point out that one of the most powerful factors which brought into being the Renaissance period of the fourteenth century was the realization by men of their own individual powers and of the responsibilities those powers carried with them. This was one of the prime characteristics of the great eras of history.

"Doctor Sondern does not overstate the facts when he says that 'we have evidence of retrogression in the increasing domination of the group spirit, the sacrificing of individual independence, a lessening sense of personal responsibility and a growing paternalism, the former intrepid pioneer in thought and act leaning more and more on

the soft bosom of the state."

THE FOLLOWING is from the Jackson County Medical Journal of Kansas City, Missouri: "Much has been written and spread by means of the printed sheet and by word of mouth about socialized medicine.

By far the greatest part of it for lay consumption has been the product of social reformers because medical men have been reticent about publishing their own ideas to the world at large for various and sundry reasons. They have expressed themselves chiefly through the medium of their own scientific journals or at private forums. Much of the little that has been permitted to seep out to the laity has been couched in such exacting language and with such detail that it has been lacking both in appeal and in comprehension to all but a few of those whom it was intended to impress.

Correspondence

[The Journal reserves the right to print correspondence to its staff in whole or in part unless marked "private." All communications must carry the writer's full name and address, which will be omitted on publication if desired. Anonymous letters will be disregarded.]

THE BLIZZARD MEN OF 1888
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To the Editor:

In the spring of 1888 New York City and the surrounding country for some distance was visited by the heaviest and most noted snow storm in the memory of our present people. The onset was sudden and unexpected, the wind velocity terrific, which piled the snow against the building of all types to the depth of many feet, and in the more open spaces, drifts were made that in places were perhaps twenty feet high and are said in parts of Long Island to have been above the carriage tops two months after the Below the earth's surface tragedy was also felt, as the wind filled many of the wells in the country sections, causing a shortage of water in many of the homes, and the cold was severe, so severe that the Hudson and East Rivers were frozen over and people walked across the East River because the storm had stopped every form of transportation except the indomitable feet of man, who plod through and dug through drifts while his strength lasted -and then-well, the deaths in New York City numbered about 400.

Railway men, lawyers, boatmen, sailors, business men, teachers, newsboys and many others have written the stories of their personal experiences, which, collected together have made new and deeply interesting pages of history of our Great Blizzard, but so far only a very few of our physicians have added their experiences and certainly

no storm ever kept our doctors from the bedsides of the needy sick and there must be many a thrilling story of the doctors' struggles, both by day and night, through this storm, that should be added to the history now being written by individuals of their personal experiences and what they saw and knew of the then existing conditions in 1888

It happens that in 1929, Mr. John Gilleran, lawyer of New York City, and Mr. Theodore Van Wyck of Valley Stream. Long Island, met and talked together of this great storm and they decided to try and locate other survivors of this blizzard. The word spread, a newspaper made an announcement of a few lines, telling of the proposed meeting, and later that spring, twenty-nine survivors met at Mr. Gilleran's office, renewed old acquaintance and reviewed their personal experiences. I happened to be among those at this first meet-A little social organization was proposed and Mr. Van Wyck was elected our First President and I was among those elected to the Board of Directors.

Today this little organization has developed into a real businesslike historic society, which from its inception has been known as "The Blizzard Men of 1888." The word "Men" in this title refers to mankind, for the society has many women members and is by no means limited to male members. have adopted as our real reason for existence the collection of the individual accounts of experiences, which when added together give a history of this Great Blizzard. Nothing like it has heretofore been written, so that for the first time the real history of this storm, together with many of the details of the existing conditions and the personal customs of our people at that time are coming to light in a very interesting and instructive fashion. As these stories come to us, together with old letters, pictures, newspapers, etc., we are delivering them all to the New York Historical Society for safe keeping, and when damaged,

papers are being repaired, and all are available to the public for reference.

We beg now that the personal experiences of our doctors while attending their sick be written by each individual and submitted to our Secretary and Treasurer, Mr. D. A. Woodhouse, 156 Chambers St., New York City. We would of course welcome all those who had experiences in this blizzard and survived to become members of "The Blizzard Men of 1888" and thus add their names to the now good-sized list of survivors, among whom appear the names of some of our country's most distinguished-citizens.

Doctors, we need your stories to make this chapter in history complete. Our next meeting will be a luncheon at the Hotel Pennsylvania, New York City, at noon on March 12, 1936.

S. M. STRONG, M.D.

February 1, 1936

American Association for the Study of Goiter

To the Editor:

The American Association for the Study of Goiter again offers the Van Meter Prize Award of \$300.00 and two honorable mentions for the best essays submitted on the goiter problem. This award will be made at the discretion of the Society at its next

annual meeting to be held in Chicago, Illinois, on June 8th, 9th, and 10th.

The competing manuscripts, which should not exceed 3000 words in length, must be presented in English and a typewritten double spaced copy sent to the corresponding Secretary. Dr. W. Blair Mosser, 133 Biddle Street, Kane, Pennsylvania, not later than March 1, 1936. Manuscripts received after this date will be held for competition the next year or returned at the author's request.

The Committee who will review the manuscripts is composed of men well known in the fields of research and clinical investigation of problems related to the thyroid gland. This Committee did not consider any of the manuscripts submitted at the last annual meeting to be of a calibre to justify the award, and consequently the award for the year 1935 was withheld by the Association.

The Association will publish the manuscript receiving the prize award in their annual Proceedings, and reserve a place on the program of the annual meeting for presentation of the manuscript by the author, if it is possible for him to attend. This will not prevent its publication, however, in any journal selected by the author.

Very truly yours,

W. BLAIR MOSSER, M.D. Corresponding Secretary

November 29, 1935

NOTICE OF EXAMINATIONS

The American Board of Obstetrics and Gynecology makes the following announcement:

The next written examination and review of case histories of Group B applicants (candidates specializing for less than ten years) for certification by this Board will be held in various cities of the United States and Canada on March 28, 1936. Group B applications must be filed in the Secretary's office not later than February 28.

The oral, clinical and pathological examination of all candidates for certification by this Board will be held in Kansat City on May 11 and 12, 1936, immediately prior to the scientific session of the American Medical Association. Applications for Group A candidates (those specializing for ten years or more) must be received not later than April 1, 1936.

The annual informal dinner and general conference of Diplomates attending the American Medical Association convention will be held at the Hotel Kansas Citian, Kansas City, Missouri, on May 13, at 7:00 P.M. At this dinner the successful candi-

dates from the examinations of the two preceding days will be presented in person, and short addresses will be made by several members of the board.

For further information, booklets, and application blanks apply to the Secretary, Dr. Paul Titus, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

We are graduating as many persons from the community into nervous and mental hospitals as we are sending out into the community each year from our colleges and universities, according to the National Health Council. More than fifty per cent of all hospital cases in this country are those of some form of mental illness. The present annual average of mental cases recovered or improved is about forty per cent.

Doctor, to small boy: "Sit down, sonny, you have shown good manners long enough.

Small Boy: "It isn't good manners, doctor, it's a boil.—Bulletin of the Medical Society of the County of Monroe.

Society Activities

General Committee of Arrangements

The General Committee of Arrangements for the coming Annual Meeting of the Medical Society of the State of New York is as

Dr. Frederic E. Bondern, President, Medical Society of the State of New York. Dr. Daniel B. Dougherty, Secretary, Medical Society of the State of New York. Dr. Charles E. Farr, President, Health Society of the County of New York. Dr. Milton J. Goodfriend, President, Medical Society of the County of Bronx. Dr. Henry Joachim, President, Medical Society of the County of Kings. Dr. James Matthew Dobbins, President, Medical Society of the County of Queens. Dr. Wm. C. Buntin, President, Medical Society of the County of Richmond. Dr. Arthur J. Bedell, Past-President, Medical Society of the State of New York. Dr. Peter Irving, Asst. Secretary, Medical Society of the State of New York. Dr. Samuel J. Kopetzky, Speaker, Medical Society of the State of New York. Dr. John A. Hartwell, Director, New York Academy of Medicine. Dr. David J. Kaliski, Chairman, Coordinating Committee. Dr. William A. Groat, Chairman, Committee on Scientific Work. Dr. William A. Krieger, Chairman, Committee on Scientific Exhibits. Dr. Chas. Gordon Heyd, Chairman, Committee of Arrangements.

The 131st Annual Meeting of the Medical Society of the State of New York will be held in New York City, April 27, 28, 29

and 30, 1936.

The House of Delegates, the Scientific Sessions, the Scientific Exhibits and the Commercial Exhibits will all be held at the

Hotel Waldorf-Astoria.

It is requested that the members contemplating visiting New York City for the Annual Meeting will make their reserva-tions with the Waldorf-Astoria early as the Hotel Management is making a reduction to members of the Medical Society of the State of New York and the hotels in New York City will be crowded at that time.

The Annual Banquet will be held on Tuesday evening, April 28, at seven-thirty p.m., in the Grand Ball Room of the Waldorf-The Committee on Arrangements are fortunate in having as their guests Lord Horder, Chief of the Medical Department of St. Bartholomew Hospital, London, and Dr. Willard C. Rappleye, Dean of the College of Physicians and Surgeons, Columbia University, New York City.

The attendance at the Banquet will be limited to one thousand. At the 1933 Meeting there were over eleven hundred guests and the Committee have thought it wise to limit the number to one thousand so that overcrowding may be avoided.

An interesting feature of the Annual Meeting will be the Open Forum on Wednesday evening, April 29, at eight-thirty p.m. in the Grand Ball Room of the Waldorf-Astoria. This Meeting will consist of eight 12 minute addresses by distinguished clinic-

ians on the following subjects:

What the Community Should Know About: 1. "Quacks and Quackery". 2. Diabetes. 3. Why People Die of Appendicitis. 4. Stuttering and Stuttering Personality. 5. Failing Eyesight. 6. Goiter. 7. Infantile Paralysis. 8. Common Colds.

This Meeting is to be open to the public.

On Thursday, April 30, an all-day Clinic Day will be held in the Hospitals and Universities of Greater New York in all departments of general medicine and surgery and the specialties.

Between one and two p.m. on Wednesday, April 29, the Program of all of the listings of Hospital Clinics will be distributed at the Registration Booth of the Society in the Foyer of the Ball Room of the Waldorf-Astoria.

Preceding the Annual Meeting and during the Meeting itself numerous radio broadcastings will be made concerning the work of the Society, the scientific features and special topics of interest.

The Press Publicity Department will be situated in the Waldorf-Astoria Hotel, close to the Registration Bureau, and will be in

charge of Mr. Dwight Anderson.

The Publicity Department for the Annual Meeting is created by Resolution of the Executive Committee of the Medical Society of the State of New York and all publicity connected with the Society, its Meetings, Papers, Exhibits, shall be cleared through this Committee. Mr. Anderson shall prepare copy for release to the press and no official communication shall go from the members appearing on the programs except through this Committee.

HOSPITAL COMMITTEE ON CLINIC DAY

Dr. R. H. Kennedy, 115 East 61 Street (Beekman Street Hospital). Dr. Russell Patterson, 135 East 65th Street, (Bellevue Hospital). Dr. Louis Hauswirth, 7 East 87th Street, (Beth David Hospital). Dr. Julius J. Hertz, 55 East 86th Street, (Beth Israel Hospital). Dr. Eugene Froelich, 28 West 74th Street, (Cancer Institute). Dr. Milton A. Bridges, 580 Park Avenue, (Correction Hospital). Dr. Alexander Nicholl, 50 East 72nd Street, (Fordham Hospital). Dr. Frederick C. Holden, 59 East 54th Street, (French Hospital). Dr. S. Nordeman Weber, 150 West 87th Street, (Gouverneur Hospital). Dr. A. J. Beller, 1155 Park Avenue, (Hospital for Joint Diseases). Dr. H. H. Tyson, 20 East 53rd Street, (Knapp Memorial Eye Hospital). Dr. Walter P. Anderton, 59 East 77th Street, (Knicker-bocker Hospital). Dr. De Witt Stetten, 850 Park Avenue, (Lenox Hill Hospital). Dr. Kirby Dwight, 1045 Madison Avenue, (Lincoln Hospital). Dr. Arthur Bookman, 25 East 77th Street, (Montefiore Hospital). Dr. George E. Milani, 2021 Grand Concourse, Bronx, (Morrisania Hospital). Dr. S. S. Oppenheimer, 124 East 61 Street, (Mout Sinai Hospital). Dr. Robert F. Traut, New York Hospital). (New York Hospital). Dr. Alan deForest Smith, 410 East 57th Street, (New York Orthopedic

Hospital). Dr. J. Prescott Grant, 114 East 54th Street, (Polyclinic Hospital). Dr. W. C. White, 107 East 85th Street, (Roosevelt Hospital). Dr. E. E. Myers, Hospital for Ruptured and Crippled, (Hos. for Ruptured and Crippled). Dr. George Gray Ward, 48 East 52nd Street, (Woman's Hospital). Dr. John Henderson, 850 Park Avenue, (Post-Graduate Hospital).

COMMITTEE ON PUBLICITY

Dr. Samuel J. Kopetzky, Chairman, Dr. Iago Galdston, Dr. George W. Kosank, Dr. Clarence G. Handler, Dr. John C. A. Gerster, Dr. Louis A. Van Kleeck.

COMMITTEE ON RADIO PUBLICITY

Dr. B. Wallace Hamilton, Chairman. Dr. Iago Galdston, Medical Information Bureau New York Academy of Medicine. Dr. Floyd S. Winslow (Monroc County). Dr. James J. Borrell (Erie County). Dr. Frederick Wetherell (Onondaga County). Dr. Frederic C. Conway (Albany County). Mrs. R. S. Hirshmann (by invitation) Courtesy of New York Tuberculosis and Health Association.

Committee on Public Health and Medical Education

PNLUMONIA CONTROL PROGRAM

The Committee on Public Health and Medical Education in its annual report to the House of Delegates, presented at the 1935 meeting, indicated the need of a campaign for the control of pneumonia, to be initiated by the Medical Society of the State of New York, and to be carried on with the assistance of other cooperative groups. Such a program has been formed and is now in operation, being sponsored by the New York State Department of Health, the State Association of Public Health, the Company, the Commonwealth Fund, and the Medical Society of the State of New York.

The purposes of the campaign, briefly,

are as follows:

1. Early medical care for pneumonia patients.
2. Laboratory service for rapid type determination and other bacteriological studies.

3. Increased use of concentrated anti-pneumococcic serum, when this treatment is

indicated.

4. Adequate nursing service for all patients.

One of the important activities of the State Medical Society in this program has been the provision of controlling instruction. In December of each County Medical Society, inquiring

as to what attention the County Society had given to this program, and whether or not, it would care to have the Committee on Public Health and Medical Education provide speakers as part of the scientific program of an early meeting. A group of internists, particularly well-qualified to discuss pneumonia, and residing in various parts of the State, was organized for the purpose of giving clinical talks on pneumonia, with special reference to serum treatment. This group included the following men, all of whom have kindly consented to serve:

Dr. Morris Block, New York City; Dr. Jesse Bullowa, New York City; Dr. Russell Cecil, New York City; Dr. H. T. Chickering, New York City; Dr. Norman Plummer, New York City; Dr. Luther Warren, Brooklyn; Dr. L. Whittington Gorham, Albany; Dr. James Rooney, Albany; Dr. Charles D. Post, Syracuse; Dr. Edward C. Reifenstein, Syracuse; Dr. Wm. S. McCann, Rochester; Dr. Edward G. Whipple, Rochester; Dr. Clayton W. Greene, Buffalo; Dr. Nelson G. Russell, Buffalo; Dr. George MacKenzie, Cooperstown; Dr. Norman Moore, Ithaca.

In addition to these clinical talks, the bacteriological side of pneumonia, with a demonstration of the rapid method of typing has been discussed by some qualified bacteriologist, and in many instances the purposes of the campaign has been dis-

cussed by Doctor Edward S. Rogers, Director of the Pneumonia Control Program, in the State Department of Health, or by some member of the Committee on Public Health and Medical Education of the State Medical Society. To date, such programs have been given at the meetings of nineteen County Medical Societies, and definite plans have been arranged for meetings during the month of February in nine other County Societies. Ten County Societies will have such meetings, but have not as yet arranged for definite dates. As this program does not include the metropolitan Counties, there are only eighteen County Societies, which have not as yet made plans for such meetings. Considering the short space of time since this matter was brought to the attention of the County Medical Societies, it would seem that this record shows a fine spirit on the part of the medical profession to cooperate in this program. With the exception of three Counties, all the details in connection with these meetings were arranged through the office of the chairman of the Committee on Public Health and Medical Education.

The percentage of attendance at these meetings has been unusually high and the meetings have been marked by the interest and attention on the part of the members. The general comment of the members has been that the programs have been interesting, and the subject has been presented in a satisfactory, helpful and practical way, Already reports are reaching the Committee on Public Health and Medical Education of the successful results obtained by physicians by the use of antipneumococcic serum,

Type I, in the treatment of appropriate cases.

These activities show that the State Medical Society is well-organized to cooperate with any agencies in a modern public health program, and to bring its forces into action within a short space of time.

PNEUMONIA LECTURES

Lectures given: Cattaraugus, Cayuga, Chautauqua, Columbia, Cortland, Delaware, Genesee, Greene, Jefferson, Madison, Onondaga, Ontario, Otsego, Putnam, Rockland, Seneca, Suffolk, Tioga, Wyoming.

Lectures Scheduled

Dutchess	.February 12th
Fulton	. February
Herkimer	February 11th.
*Oneida	.February 20th
Orange	Independent
Oswego	February 18th
St. Lawrence	February 13th
Schenectady	February 11th
Tompkins	February 18th

(Chronologically)

11Herkimer	
11Schenectady	Cecil
12Dutchess	Plummer
13St. Lawrence	Post
18Oswego	Reifenstein
18Tompkins	
20 Oneida	Cecil
Fulton	
Orange	

Lectures requested: Chemung, Clinton, Lewis, Monroe, Nassau, Saratoga, Steuben, Warren, Washington, Westchester.

EDUCATION OF THE PUBLIC as one phase of the campaign to reduce mortality from pneumonia in New York State was undertaken by the five organizations cooperating, the Medical Society of the State of New York, the State Department of Health, the State Association of Public Laboratories, the Metropolitan Life Insurance Company, and the Commonwealth Fund.

A three-cornered radio conversation on the subject between Governor Lehman, Commissioner Parran, and Dr. Sondern was broadcast at 6:45 p.m. on January 14, 1936, over station WGY. The following day the Governor issued a proclamation which appeared widely in the press and which was published in the last issue of the Journal [p. 198].

For the information of physicians who may not have listened in there is here reproduced the full text of the radio discussion. It gives, in proper perspective, the objectives of the campaign and the steps taken and to be taken to awake the interest of the public.

Governor Lehman: Good evening, Dr. Sondern. Good evening, Dr. Parran. I understand you want to talk to me again about pneumonia.

Dr. Sondern: Yes, Governor, it's pneumonia control and Dr. Parran and I believe the time is ripe for a concerted effort to cut down the appalling total of deaths caused by this disease.

Governor Lehman: You told me something of this before, Dr. Parran, when you asked me to increase the appropriation for the State Laboratory so that you could make a new serum for the treatment of pneumonia. Do you mean that you need more money?

Doctor Parran: No, Governor Lehman. We need your interest and your help, but

^{*} In connection with the Utica Academy of Medicine. † Independently arranged.

we are not asking for money this time. The fifty thousand dollars you recommended in your budget message to the Legislature last night will go a long way toward supplying scrum for all pneumonia cases in which serum treatment is of value.

Dr. Sondern: And it will be good serum, too, Governor. The State funds are well spent for that purpose.

Governor Lehman: You imply that not all pneumonia cases can be helped by serum. Why not?

Dr. Sondern: Because there are 32 types of pneumonia germs, and serum has been conclusively proved reliable only for Type I, the most common variety. If used early enough it has been shown that serum will cut the number of these deaths in half, or even by two-thirds. We hope within the year to establish its value for one or two other types.

Dr. Parran: Yes, Governor. It is perfectly accurate to think of pneumonia in these terms. This disease causes a loss of 12,000 lives in New York State each year,—a number equal to the entire population of a good-sized city—Tonawanda, for example; or Beacon, or Fulton, or Oneonta. If each year such a city were to be destroyed by some strange, new plague, we would think no cost too great, and no effort great enough to put an end to such loss of life!

Governor Lehman: And do you gentlemen seriously believe that something can be done about this, now, when these pneumonia deaths have been going on for years?

Dr. Sondern: We do believe it. For one thing, we have seen a comparable campaign bring solid results. You may remember, Governor, how the State Medical Society and the State Department of Health, with the aid of interested citizens, organized the drive against diphtheria ten years ago. Today, diphtheria has almost disappeared in many parts of the State.

Governor Lehman: That's interesting. How many deaths did we have from diphtheria last year, Dr. Parran?

Dr. Parran: About one hundred.

Governor Lehman: How many ten years ago?

Dr. Parran: More than a thousand.

Governor Lehman: That is splendid. Can you repeat the performance for pneumonia?

Dr. Sondern: The prevention of pneumonia deaths on a large scale is a much more difficult task, because we can not as yet immunize against it, before the indi-

vidual becomes ill, as we can against diphtheria.

Governor Lehman: Then how do you expect to get results? The use of serum for the treatment of pneumonia isn't particularly new, is it?

Dr. Sondern: There are two reasons why we feel hopeful now. Recently we have learned how to produce a concentrated scrum which is easier to use and gives better results. Thanks to the foresight of your State Department of Health, Type I serum is freely available to meet all requirements of up-state physicians. Serum is important, but also of importance is the fact that we have developed a quick laboratory test by which we can tell one type of pneumonia germ from another.

Dr. Parran: Any good laboratory now can telephone a report to the doctor attending a pneumonia case half an hour after the sample of sputum has been received. Formerly it took a whole day.

Dr. Sondern: Since much of the value of the scrum depends upon its being administered early, you can see, Governor, that this is a great gain.

Governor Lehman: Yes, I can understand that these things would help. But how are you organized to get this better treatment to the individual patient? What is your plan of action?

Dr. Parran: As in the case of the diphtheria campaign, Governor Lehman, this is a joint effort. The State Department of Health directs the program, supplies the serum, makes sputum examinations for doctors to determine the type of pneumonia, assists in the organization of local nursing services for the care of pneumonia patients, and in the education of citizens to cooperate. The State Association of Public Health Laboratories through its 77 laboratories in 35 counties also helps to carry the load of making quick and accurate examinations. The Commonwealth Fund and the Metropolitan Life Insurance Company have made voluntary contributions to the cost of the campaign. Greatest of all is the contribution of the State Medical Society. Dr. Sondern, won't you tell about that?

Dr. Sondern: The State Medical Society has assumed as its responsibility the post-graduate training of its own members by pneumonia specialists. The most up-to-date scientific information on the treatment of pneumonia has been placed in the hands of the family physician. We believe that pneumonia patients every place in the State will receive the high-type, modern treatment upon which their lives depend. In addition,

the Society is devoting itself wholeheartedly to the task of education, using every possible means to bring home to the families to whom pneumonia may come this winter the necessity of swift, intelligent cooperation with the family doctor in his fight to save pneumonia victims.

Dr. Parran: As we said before, Governor, our need now is not for money, nor serum, nor professional cooperation. It is the need of getting public attention. We can supply the best of medical and nursing care; the best of laboratory service. We can not supply in people the disposition to take their colds seriously; for in the management of colds there is a simple means of preventing many cases of pneumonia—even the types which serum will not help.

Dr. Sondern: Yes, a great many pneumonias start from a neglected cold. I wish I could picture for you from my 30 years' experience the many instances of needless death from this cause. The child who went to school with a feverish cold: came home with wet feet; then a chill, a high feverpneumonia! The working man who was reluctant to lose a day on the job because of a cold—he lost his job forever! The mother who felt she couldn't go to bed for her cold because she had housework to do and children to care for-her children are motherless now! The professional man who felt he must not break appointments except for serious illness-he never kept another appointment! Ignoring danger signals had the same result for all of them; the cold plus neglect equalled pneumonia. And too frequently, in the past, pneumonia has spelled death.

Governor Lehman: What are the chief danger signals?

Dr. Sondern: Pneumonia is an inflammation of the lungs. Cough, fever, chill, pain or heaviness in the side or chest, spitting of blood—all mean danger. Sometimes these first signs are slight and often disregarded. I have seen so many patients who have had pneumonia for several days before it was recognized.

Dr. Parran: The person who feels that way should go to bed at once and call a doctor.

Dr. Sondern: Staying in bed conserves the patient's resistance, so he can ward off the cold himself and prevents him from spreading it to others.

Dr. Parran: More than that, it keeps him out of contact with other persons apparently well, who may be carrying around some vicious pneumonia germs ready to attack just such an easy mark.

Dr. Sondern: Moreover, pneumonia is dangerous in that its poisons, or toxins, place a great strain on the heart. Good nursing care is essential. That, too, may make the difference between life and death.

Dr. Parran: In this connection, Governor, you will be interested to know that for the more than 500 WPA nuhses, working in the State under our supervision, the care of pneumonia cases among the needy will be a first obligation. Visiting nurse associations in upstate cities are offering extra service to pneumonia cases for, as Dr. Sondern points out, it has been shown that many lives can be saved when full nursing care is given to pneumonia.

Governor Lehman: If you could get the majority of people to follow your rules, gentlemen, how many lives do you think could be saved?

Dr. Parran: We have given a good deal of thought to that question, Governor, and believe that one-fourth of the present deaths could be prevented—three thousand lives a year saved—if we could get people to follow this simple rule: If you have a cold, go to bed. If you have a cold with a fever, stay in bed and call the doctor. The doctor, of course, will administer serum when needed and arrange for adequate nursing care.

Governor Lehman: The rule may be simple, but I am fully aware that the problem you describe is exceedingly difficult. It is a human characteristic to believe that no matter what happens to others, we ourselves can escape the results of breaking health rules.

I agree with you, however, that the saving of these lives is worth every effort we can put into it. You hold out to me the hope that three thousand lives can be saved each There is no service the State can render which would mean more in terms of humanity. For I can think of these statistics only in human terms, gentlemen. To me, three thousand lives means homes unbroken; fathers saved for the support of their families; mothers spared for the care of their children; sons and daughters living to fulfill their parents' hopes. I can be dispassionate enough about material problems. None of us may fail to be passionately concerned about human problems. you say, these lives will continue to be wasted by our failing to do what we know how to do to save them, then further inaction would be criminal neglect.

Dr. Sondern, I am glad you feel that the State is doing its share to cut down pneumonia deaths through the work of its laboratory and the services of our health

officers and nurses Will you tell the physicians of New York that we shall work with them to the finish in this campuign to

save life?

Dr Parran, will you express to the organizations and individuals who are so generously cooperating in this great work, my most sincere personal thanks. If after ten years of effort, you have almost conquered diphtheria it is my hope that in 1946 we shall have made comparable progress against the pneumonia scourge Since the professional resources for the fight seem to be well organized, it seems obvious that your whole present problem is that of educationand education on a scale you doctors and health officers have never before undertaken! Surely, everyone will help when he understands the need for help-every physician

and nurse in the State, newspapers, radio stations, schools, churches—all the forces which influence public opinion and move men to action. As an initial step I intend to issue an executive proclumation calling public attention to the task and its tremendous reward. You may expect it tomorrow.

Further than that, if there is anything I can do personally or if other departments of the State government can serve your

purpose, you will find us ready

Gentlemen, I thank you for the story you have brought me tonight. I believe that you will succeed in your endeavor. I believe that through such teamwork of State and cutizen as you describe we shall conquer pneumonia and save these wasted lives.

Committee on Legislation

Bulletin No 3

January 23, 1936

HEARINGS Tuesday, January 28, joint hearing before Judiciary and Codes Committees on all crime bills, including jury

exemption bills; 2 00 P.M.

NEW BILLS INTRODUCLD Senate Int. 348—Twomey, Assembly Int 446—Steingut; amends Chapter 798, Laws of 1931, by extending to February 15, 1937, life of Temporary Emergency Relief Administration Referred to the Finance Committee in the Senate and the Relief and Welfare Committee in the Assembly

Comment Another bill relating to the extension of the TERA for another year

Senate Int 377—Quinn, Assembly Int 411—Bush, adds new section to the Mental Hygiene Law, making it a misdemeanor to bring poor or indigent persons into State for care or treatment at State expense, in institutions within the Mental Hygiene Department Referred to Codes Committee in the Senate and Public Health Committee in the Assembly.

Comment A Department of Hygrene measure intended to prevent what has come to be an abuse of our hospital system Persons residing here have been bringing relatives who are residents of other states to New York State and entering them into our

hospitals.

Senate Int 383—Feld, adds new article to the Public Health Law for regulating practice of electrolysis, which is defined as method used for permanent removal of superfluous hair by means of an electric needle Referred to the Public Health Committee

Comment This bill was before the Legis-

lature last year but it was then referred to the Committee on Education

Senate Int 425—Kirkland, Assembly Int 483—Whitney, amends the Agriculture and Markets Law for testing bovine animals for Bang's disease and mastitis, as well as for tuberculosis, relative to sale of such infected animals, and providing for indemnities Referred to the Committees on Agriculture

Comment A copy of this bill has not as yet been received and will be commented

upon in our next bulletin

Sente Int 442—Nunn, Assembly Int 550—Fitzpitrick, adds new sections 188 to 193, Labor Law, by providing no employee of any hospital shall be required to work more than eight hours a day or 48 hours a week Referred to the Labor Committees

Provides that all hospitals Comment shall be classified in three groups (a) Hospitals conducted for the indigent sick by the State or any political subdivision thereof. (b) Hospitals conducted as charitable or non-profit-making institutions, (c) Hospitals conducted for profit by private corpora-tions or individuals. And further provides that all employees shall serve no more than eight hours in any twenty-four, and "Emploves' shall be deemed to include any person performing any work whatsoever for compensation or wages and/or maintenance and/or partial maintenance in connection with the operation of any hospital, and shall include internes, office employees, watchmen. special policemen, nurses, student nurses, attendants, orderlies, porters, engineers, firemen, custodians, maids, kitchen workers, and each and every person employed in connec tion with the operation of any hospital" Each employee shall be entitled to receive twentyfour consecutive hours of rest in any calendar week. Exceptions: "(1) Laboratory or other employee who customarily works less than eight hours a day, shall not be required to increase the number of his working hours per day; (2) In cases of extraordinary emergency during the prevalence of an epidemic, plague or other catastrophe, the provisions of this title in relation to hours of labor may be modified during such time."

Assembly Int. 412—Bush, amends the Mental Hygiene Law by providing in case of residents of states with which there is no reciprocal agreement, requirements necessary to gain residence in this State shall be not less than those required for acquiring residence in state from which non-resident comes. Referred to the Public Health Committee.

Comment: Another Department of Hygiene measure intended to make similar the laws of our State to other states with which we have reciprocal relationships.

Assembly Int. 511—Lo Re, amends the Education Law by making compulsory transportation and education of physically handicapped children, such children to mean children certified by State or local health boards or medical board of a board of education, as blind, cardiopathic, crippled, deaf, epileptic, tubercular or otherwise so afflicted as to be in need of transportation and instruction. Referred to the Education Committee.

Comment: This provision is already in the law as a permissive arrangement. The amendment would make it mandatory not only on the State Department but also upon local boards of education.

The Committee on Legislation held a conference in the Bureau office on Tuesday, January 21, and reviewed the bills that were before the Legislature at that time. Their action upon the bills follows:

APPROVED: Senate Int. 12—Buckley; Assembly Int. 30—E. F. Moran; Senate Int. 62
—Williamson: Senate Int. 104—Feld; Senate Int. 134—Desmond; Assembly Int. 136—Taylor: Senate Int. 135—Nunan; Assembly Int. 115—Fitzpatrick: Assembly Int. 332—Justice; Senate Int. 177—Kirkland; Assembly Int. 40—Bartholomew; Senate Int. 178—Kirkland; Senate Int. 220—Schwartzwald; Assembly Int. 215—Bush; Assembly Int. 1—Whitney; Assembly Int. 84—Dunn; Assembly Int. 93—McCaffrey; Assembly Int. 204—Otto.

OPPOSED: Assembly Int. 83-Doyle.

No Comment: Senate Int. 57—Wicks; Assembly Int. 61—Wadsworth; Senate Int. 233; Assembly Int. 200—Budget Bill.

A proposed lien bill, submitted by the Committee on Economics, was presented by Dr. Elliott, Chairman. It was considered and referred back to Dr. Elliott's committee

with recommendations that certain modifications and additions be incorporated and resubmitted promptly.

The Legislative Committee also decided to have an amendment to the Pharmacy Law prepared, requiring the distribution of barbituric acid preparations by prescription only.

Another recommendation was that an amendment to the Education Law be drafted which will require that physicians from foreign countries seeking a license to practice in New York State, be required to take the licensing examination unless those countries grant licenses to American physicians to practice there without examination.

The Committee also decided that an amendment should be drafted to the Education Law that would make it a misdemeanor for physicians to advertise for patronage.

The Committee selected Thursday, February 6, as the date for the annual conference of County Society legislative chairmen. The conference will be held at the Hotel Ten Eyck, Albany, beginning about 10:00 A. M. It is hoped that every county chairman will find it possible to arrange his work so that he can be present at this conference. As usual, his travel expenses will be refunded by the Society.

Bulletin No. 4

January 29, 1936

None of the bills in which we are interested has been acted upon since our last bulletin and no further hearings have been announced. The following new bills have been introduced:

Senate Int. 503—Mandelbaum, enacts the Health Insurance Law, as Chapter 23-a, Consolidated Laws, for establishment and administration of system of health insurance, employer to pay into fund amounts ranging from 3½ per cent to 1½ per cent of total wages, based on weekly wage rate, employee to pay from one per cent to three per cent of his wages according to weekly rate, and State to pay 1½ per cent of total wages paid by employers, and appropriating \$100,000. Referred to the Insurance Committee.

Comment: This is the Epstein Health Insurance Bill which we opposed last year. We are informed that no changes have been made in the bill and Senator Mandelbaum has said that he will not attempt to move it immediately. It was handed to him for introduction and his future action will depend largely upon the manner in which it is received. Hence we suggest that you write Senator Samuel Mandelbaum and members of the Senate Insurance Committee, to whom the bill has been referred—your opposition

to the bill. (See Digest of Bill 503—Mandelbaunt.) Senate Committee on Insurance: D. T. O'Brien, Chairman, Thomas F. Burchill, John T. McCall, Stephen J. Wojtkowiak, Lazarus Joseph, Frank B. Hendel, Joseph A. Esquirol, James A. Garrity, Jacob J. Schwartzwald, Jacob H. Livingston, Nelson W. Cheney, Joe R. Hanley, Pliny W. Williamson, Martin W. Deyo, C. Tracey Stagg, William H. Hampton.

Senate Int. 528—Kelly; Assembly Int. 671—Langenbacher, adds new article to the Public Health Law, establishing a division of foods in the Health Department to investigate methods by which foods are prepared, including bakery products, confections, and frozen desserts; to experiment in Laboratories to determine relative calory value of various foods; fix standards for menus for hotels, restaurants, and other eating places, etc.; and appropriating \$50,000. Referred to the Finance Committee in the Senate and the Ways and Means Committee in the Assembly.

Senate Int. 536—Schwartzwald; Assembly Int. 624—Bush; amends the Public Health Law by permitting State Health Commissioner to deputize any assistant, administrative officer or division director to perform in his place any act he is empowered to do. Referred to the Health Comercial State of the State of the State of the Health Comercial State of the Health Comercial State of the S

mittees.

Senate Int. 563—Byrne, Judiciary Law, by providing jury duty exemption only for lawyers, doctors, clergymen, firemen, policemen, U. S. soldiers and sailors, ships' officers, and any member of active militia of State. Referred to the Judiciary Committee.

Comment: Provisions regarding physicians are identical with Senate Int. 12—Buckley; Assembly Int. 30—E. F. Moran. Assembly Int. 623—Breitbart, amends the

Domestic Relations Law by prohibiting a town or city clerk from accepting an application for marriage license unless accompanied by record of standard laboratory blood test. Referred to the Judiciary Committee.

Assembly Int. 625—Ehrlich, adds new section 220-f, Labor Law, limiting hours of labor of employees in State institutions in Mental Hygiene Department to eight hours a day and forty-eight hours a week. Re-

ferred to the Labor Committee.

Assembly Int, 654—Potter, adds new section 220-f, Labor Law, by limiting hours of labor of nurses and other employees in State hospitals to not more than eight hours a day, eight consecutive hours in any twenty-four to constitute a legal day's work. Referred to the Labor Committee.

In our last bulletin we were unable to discuss Senate bill Int. 425—Kirkland: Assembly Int. 483—Whitney, because we had not seen a copy of it. We are now in a position to say that the bill is almost identical with the other Bang's disease bills. It is less desirable in that it considers mastitis as

infectious as Bang's disease.

While as yet there has not been a great deal of legislation introduced in which we are interested, there are, nevertheless, very important matters that we should discuss at the conference to be held on Thursday, February 6th, and we hope that every chairman will find it possible to be present: or, if it is going to be impossible for him to come, that he will send as a substitute a member of his Committee.

HARRY ARANOW
B. B. BERKOWITZ
B. WALLACE HAMILTON
JAMES F. ROONEY
LEO F. SIMPSON

Digest of Bill 503 (Mandelbaum)

PREMIUMS-ARTICLE II

Premiums; Allotted by Board and paid to State Commissioner of Taxation.

Employer: 3½% on \$20 per week or less, 2½% on \$21 to \$40 per week, 1½% on \$41 plus.

Employees: 1% on \$20 or less, 2% on \$21 to \$40, 3% on \$41 plus.

State: 11/2% of total of all wages paid periodically.

Tax exempt.

CASH BENEFITS-ARTICLE III

Cash benefits begin six months after October 1, 1935.

Qualifications: 1. Loss due to disability. 2. Served notice of disability. 3. Had no less than 104 days' employment or cash voluntary insurance within the preceding

twelve months or 160 days in preceding twenty-four months.

Disqualification: Eligible for benefit under the workmen's compensation.

Waiting period: Disability amounting to five days' full time daily wages.

Amount of Cash Benefits: 50 per cent of wages not to exceed \$15 per week. With dependent spouse 10 per cent or \$3 per week additional. With dependent one child 5 per cent or \$1.50 per week additional. With dependent two children 15 per cent or \$4 per week additional.

Duration: Total of 156 days in any fiftytwo weeks. No benefits until a lapse of sixty days after termination of previous period.

Qualifications extended after employment ceases: One day for every five of previous employment.

MATERNITY BENEFITS-ARTICLE IV

Regular Benefit: From six weeks before to six weeks after birth of child.

Qualifications: 1. Has had 250 days of employment during preceding twenty-four months. 2. Has registered. 3. Is receiving prenatal care.

Disqualification: If gainfully employed benefit shall not be paid.

Exempt Period: Maternity benefit shall be paid although period of eligibility under section 25, article 3 may have expired.

Added Benefit: If prenatal care as prescribed \$15 additional to, 1. Employee qualified to receive regular benefits. 2. Wife of an employee qualified to receive benefits. 3. Widow of employee who at his death was so qualified if child is born within ten months.

Prolongation of qualifications: If employment ceases, eligible for one day additional for every five days of previous employment.

MEDICAL BENEFITS—ARTICLE V

Eligibility: Employee, dependent spouse, dependent children and such other dependent members living in same household.

Qualifications: 1. Has had not less than ten days employment in preceding three months. 2. Has given notice for same.

Disqualifications: If entitled to benefit under Workmen's Compensation.

Extent of Benefits: 1. Physician at office, home or hospital or elsewhere in prevention,

diagnostic or therapeutic, periodic examination and immunization. 2. Hospital treatment and care including nursing. 3. Prenatal care in home or hospital. 4. Special services of surgeon, diagnostician, etc. 5. Services of laboratories and clinics. 6. Services of dentist for exodontia, plastic fillings, prophylactic care. 7. Services of dentist for correction of potential disabling conditions.

Duration of Regular Medical Benefits: 1. General medical or dental care for twenty-six weeks, specialist or laboratory twelve weeks. 2. If employment ceases general services twenty-six weeks more and twelve weeks of specialism or laboratory. 3. Hospitalization for 111 days (21 without charge and 90 at from 10 per cent to 25 per cent cost). 4. General care for no more than ninety days in any consecutive 104 weeks to persons sixty-five.

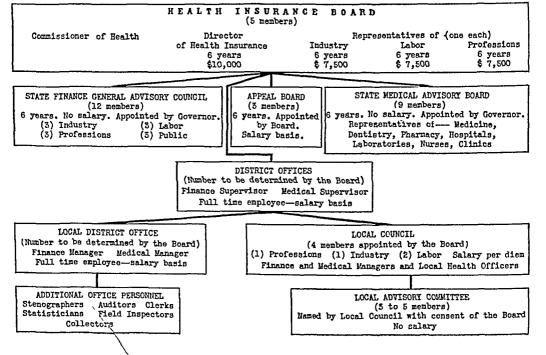
Additional Medical Benefits: 1. Drugs, medicines, and ordinary appliances or prescriptions. 2. On prescription, nursing service. 3. Institutional care for convalescents. 4. On prescription, special appliances. 5. Special dental care.

Discretion of Board: 1. May provide any or part of additional benefits for entire State or localities. 2. Provide additional benefits free or for part of cost.

Development of Facilities: 1. Construct hospitals, laboratories, clinics, etc.

VOLUNTARY INSURANCE—ARTICLE VI Eligibility: Resident of State employed

SET-UP OF MANDELBAUM BILL (503)



not subject to this chapter under sixty-five years and earning less than \$60 per week.

Premium 11/8 per cent of wages.

Voluntary Medical Benefits: Others and their dependents than those stipulated in other parts of chapter if they pass a physical examination, 1. Resident of State, not disabled, income \$60 per week or less and not sixty-five years. Premium 33% per cent of income. 2. Resident of State, not disabled, had not less than 260 days of employment or voluntary insurance in preceding three years and income does not exceed \$100 a week. Premium 33% per cent of income. 3. Resident of State who within preceding three years had 260 days employment and/or voluntary medical insurance, unemployed though capable of employment. Premium 338 per cent of what Board considers fairly represents weekly income. 4. Any resident receiving old age or unemployment insurance from any government officer provided he pays into fund.

Voluntary Additional Medical Benefits: 1. For additional voluntary premium any of additional medical benefits. 2. Either to entire State or section or groups as board may wish. 3. Premium shall be fixed to bear complete cost of special service. 4. All rules and regulations may be modified at

any time.

State's premium 1/3 of all sums paid in.

ARTICLE VII

Section 65. Duties and Powers of the Board: 1. Make rules and regulations for administration. 2. Employ district and local finance and medical supervisors and managers, and other employees and assistants; determine their salaries and other duties. 3. Furnish and pay benefits. Supervise all acts of district finance and medical managers and local councils, 5. May disregard or nullify any acts of local councils. 6. After hearing remove any physician or dentist, etc., from the list. 7. Provide for non-residents who are entitled. 8. Make inquiries into causes of sickness and injuries. 9. Promote health and safety; take steps to prevent sickness. 10. Cooperate with the Health Officer. 11. Make contributions or donations to hospitals or laboratories.

Section 69. Function of District Offices. Finance Supervisor: 1. Supervise and direct collection of premiums. 2. Disbursement of cash and maternity benefits. 3. Providing and defraying cost of medical benefits. Medical Supervisor: 1. Supervise and direct administration and furnishing of the cash,

maternity and medical benefits.

Section 73. Duties of Local Councils: 1. Supervise collection of premiums. Supervise payment of cash and maternity benefits, notices of injury and disability and expenses of disbursements for medical care. 3. Supervise furnishing of medical benefits. 4. Cooperate with public health agencies. 5. Prepare and publish lists of physicians and dentists. 6. When necessary, secure assistance of another district. 7. Arrange for remunerating physicians, dentists, etc.
(a) Salary. (b) Per Capita. (c) Fee system based on character of service. (d) Any combination. (Majority of physicians or dentists engaged must agree to method.) 8. After hearing remove physician et al from list. 9. Distribute patients. 10. Submit reports.

Section 75. Duties of Local Finance Manager: (Full Time). 1. Manage collection of premiums. 2. Manage payment of cash or maternity benefits. 3. Manage disbursements of medical benefits. 4. Manage all other matters. Duties of Local Medical Managers: (Full Time). 1, Pass upon notices of sickness, injury or disability. 2. Pass upon claims for eash, maternity and medical benefits. 3. Pass upon furnishing medical benefits. 4. Pass upon claims by persons furnishing medical benefits. 5. Pass upon complaints with respect to medical benefits. 6. Pass upon services rendered by all furnishing medical benefits.

MEDICAL RADIO BROADCASTS

The Medical Information Bureau of the New York Academy of Medicine announces the following broadcasts from Station WABC and the Columbia Broadcasting System network:

Thursday, February 20, 1:45 P.M.— Speaker: Dr. B. S. Oppenheimer, Assistant Professor of Clinical Medicine, College of Physicians and Surgeons, Columbia Univer-

sity. Subject: "Imaginary Heart Disease."
Thursday, February 20, 1:45 P.M.—
Speaker: Dr. G. Randolop Manning, Clinical Professor of Gastro-Enterology, Polyclinic Medical School and Hospital. Subject: "From Caveman to Dyspepsia-A Survey of Modern Life."

Thursday, February 27, 1:45 P.M.— Speaker: Dr. Thomas T. Mackie, Physician to Out-Patients, New York Hospital. Sub-ject: "The A, B, C-Aids to Nutrition-Vitamins."

An operation on a cat to remove a twoshilling piece it had swallowed moves the London Punch to observe that it isn't often you find so much in the kitty.

Public Health News

As previously announced in *Health News*, the special program for the control of pneumonia was inaugurated on January 1. This program is unique in that it is a cooperative undertaking actively participated in by several agencies, including the New York State Medical Society, State Association of Public Health Laboratories, Commonwealth Fund, Metropolitan Life Insurance Company, and the State Department of Health.

The immediate objectives of the program are as follows: production and distribution without cost to physicians of a highly concentrated and purified type I antipneumococcus serum; extension of approved laboratory service for sputum typing; emphasis to physicians of the importance of the early diagnosis of pneumonia based upon both symptomatology and laboratory findings, and of the advantages of serum therapy for type I cases; instruction of the general public as to the importance of early and adequate medical care for severe acute respiratory infections; and provision of facilities for adequate bedside nursing care in so far as possible.

The Division of Laboratories and Research, on December 30, forwarded an initial supply of concentrated type I antipneumococcus serum to seventy of the supply stations throughout the State. Distribution of the amount prepared—sufficient to meet over twice the demand for unconcentrated serum during the first three months of last year—will be continued. The serum is put up in vials containing 20 cc. (equivalent of 25,000 units) and will be distributed without charge to physicians through state laboratory supply stations. The estimated average total dose is 100,000 units. A less amount is frequently ample for cases treated early. All physicians obtaining serum will be requested to fill out a short report at the

end of the patient's illness. Physicians are also asked to take only as much serum as is necessary for the adequate treatment of each individual case and to return promptly any unused material, since the serum is very expensive and the supply limited.

Facilities for sputum typing by the rapid (Neufeld) method are now available in seventy-seven approved laboratories throughout the State. Plans are under way for extending the service and it is hoped that eventually typing facilities will be within reasonable access of physicians in all parts of the State except the most sparsely settled

regions.

Adequate nursing care is a recognized necessity in the treatment of pneumonia. Official and voluntary nursing organizations such as the New York State Nurses' Association, various visiting nurse associations, the Metropolitan Life Insurance Company, and the Division of Public Health Nursing are considering ways and means for providing bedside care and supervision. Welfare officials are to be requested to make special effort to see that adequate nursing care is provided for pneumonia patients otherwise unable to pay for such care.

unable to pay for such care.

The New York State Medical Society through its Subcommittee on Public Health and Education is prepared to make suggestions and to provide speakers for meetings, and conferences on pneumonia attended by medical groups. Many county medical societies have already held, or are planning to hold, special meetings devoted to the various aspects of pneumonia, and a keen interest in the program has been manifested by physicians and health officials. It is hoped that similar interest in reducing mortality from pneumonia may be created in the minds of the general public throughout the State.—

Health News, January 20, 1936.

Pneumonia

Leaflet Issued by The State Department of Health

Antipneumococcus serum, type I, is prepared, tested, and distributed by the Division of Laboratories and Research. The serum is concentrated and purified.

Under no circumstances are any of the antitoxins, sera, vaccines, or other preparations distributed by this department to be sold. A violation of the above rule will subject the violator to the penalty prescribed by Section 1740 of the Penal Code.

Striking results in serum therapy have followed early treatment of many type-I

cases with type-I antipneumococcus serum. When given under such conditions the mortality has been markedly lowered.

The serum in bottles containing 20 c. c. (equivalent of 25,000 units) is distributed, upon special request, through the district supply stations for the treatment of suitable cases in which the presence of pneumococcus, type I, is indicated. In emergencies it may be obtained directly from the State Laboratory in Albany, or from the Branch Laboratory, 339 East 25th Street, New York City.

In each package is included a small bottle containing normal horse serum diluted 1:10 with salt solution for use in the tests of sensitivity to horse serum.

Sterile physiological salt solution in 10 c.c. amounts for use in preparing the dilution for the intracutaneous test of susceptibility, for rinsing water from syringes and needles which have been boiled, and for diluting the serum for the preliminary injection may also be obtained from supply stations, when not otherwise available.

Every physician using antipneumococcus serum provided by the State is asked to report the results of its use on the form supplied with each package. The form should be filled out completely and returned to the Division of Laboratories and Research, New Scotland Avenue, Albany. A record of the therapeutic action is essential for the maintenance of high standards of potency.

DIAGNOSIS

A specimen of sputum should be sent with the least possible delay to the nearest laboratory approved for pneumococcus-type differentiation. In the case of children and occasionally of adults, it may be necessary to collect the sputum from the throat with a sterile swab during the act of coughing. When type-I pneumococci are indicated, type-I antipneumococcus serum should be given immediately. Prompt diagnosis and early administration of serum are essential.

The directions for the collection of sputum for laboratory examination are given in the circular accompanying the outfits in which the material may be submitted, or can be learned through consultation with the director of the laboratory making the examination.

DIRECTIONS FOR THE USE OF ANTIPNEUMOCOCCUS SERUM

Dosage. To be effective the serum must be given intravenously. The first dose should be 40 c.c. (equivalent of 50,000 units). It is divided into a preliminary injection of 1 c.c. followed in from one-half to one hour by 39 c.c. A second dose of 40 c.c. is usually given from four to six hours after the first. When practicable, dilution of the serum before administration is desirable. Further administration depends upon the results of treatment and the condition of the patient. In cases of over 72 hours' duration and in those failing to show improvement within 12 hours, more than 80 c.c. (100,000 units) of serum may be required.

Precautions Against Anaphylactic Reactions. The injection of horse serum, whether concentrated or unconcentrated, may, in rare instances, incite severe or even fatal reactions of an anaphylactic character in highly susceptible persons. They usually occur in persons who suffer from hav fever, asthmatic or other allergic symptoms, or who have previously received an injection containing horse serum. Hence, the previous history should always be obtained. It is, therefore, highly important to determine in all instances whether a condition of hypersusceptibility exists. For this purpose an intracutaneous test and an ophthalmic test are generally used. Intravenous injection of serum may induce severe or fatal reactions in persons who fail to react to the tests. Absence of systemic reactions when skin sensitivity has been demonstrated has also occurred.

Intraculaneous Test. An area on the inner surface of the forearm is gently cleansed with soap and water, then alcohol without reddening. From the 1:10 dilution of normal horse serum contained in each package of antipneumoocous serum, prepare a 1:100 dilution in sterile physiological salt solution and inject 1 cc, intracutaneously. If a wheal, with or without erythema, does not appear at the site of injection within from 10 to 15 minutes, the injection of serum is usually a safe procedure. If the skin reaction is positive, serum administration is generally contraindicated unless every facility is at hand to treat a possible severe reaction.

Ophthalmic Test. Drop into the conjunctival sac one drop of the 1:10 dilution of normal horse serum supplied in each package. If definite congestion of the conjunctiva develops within 10 minutes with a sensation of itching and burning of the eye, a dangerous sensitiveness to horse serum is indicated and intravenous injection is contraindicated unless desensitization is practicable. Should the local reaction be marked, it may readily be controlled by prompt application of epinephrine (1:1000) to the eye.

"Descusitization." The procedure of "desensitization" and the therapeutic administration of serum are not advised in the case of patients with a positive skin or ophthalmic test except under conditions such as may be found in a well-equipped hospital. Serum therapy even under these conditions must be considered hazardous. The following procedure has been used in attempted desensitization. Subcutaneous injections of the serum, beginning with .01 or even less, are given at one-half-hour intervals until 1 c.c. is reached by doubling or tripling the dose if no reaction develops. If 1 c.c. injected subcutaneously incites no reactions, 1 c.c. may be given intravenously one-half hour later. Should this give rise to no reaction, the doses may be increased very gradually until the desired amount has been administered. With a few individuals the limit of tolerance will soon be reached. When an interval of more than three days elapses between injections of serum, the danger of serious reaction is considerable and fatal results even after attempted desensitization have been reported.

Administration of Serum. Intravenous injections are made into the median basilic vein very slowly by gravity, or directly at a

rate of 1 c.c. per minute or even more slowly than this at first. The physician should be on the alert for symptoms suggesting Since the serum protein is anaphylaxis. precipitated by water, needles and syringes after boiling should be rinsed with sterile physiological salt solution or, if facilities are available, sterilized by dry heat. The serum for the preliminary injection of 1 c.c. should be diluted immediately before administration with from 5 to 10 c.c. of warm, fresh, sterile physiological salt solution. When practicable, subsequent doses should be diluted with an equal volume of salt solution. If any sediment is present, the serum should be removed carefully from the bottle so that it is not carried over. Special care should be taken that the serum is at body temperature when injected.

Serum Reactions. Anaphylactic reactions are extremely rare. They usually appear within the first few minutes following serum administration, but they may occur as late as one hour after treatment and also after the second or third dose. The symptoms may include dyspnea, cyanosis, urticaria, lumbar or abdominal pain, and collapse. Hypodermic injection of, from .6 c.c. to 1.0 c.c. (10 to 16 minims' of epinephrine

solution (1:1000) will usually give prompt relief. Therefore, a fresh solution in a hypodermic syringe should be kept at hand, since time may be an important factor. Moderate or severe reactions characterized by chill, rise in temperature, or rapid pulse occasionally occur. They are evanescent, however, and rarely require more than symptomatic treatment. Serum rashes sometimes develop after five days. They may or may not be accompanied by other symptoms While conoccurring in serum disease. siderable temporary annoyance may be caused, they should not be regarded as serious or as having any lasting effect. Physicians are advised to remain with the patient for at least a half-hour after administration of the serum so that they will be readily available in case a severe reaction develops.

Physicians are again cautioned against resuming the treatment after an interval, without repeating the sensitivity tests. Surgical asepsis is essential in the administration of the serum. The period of convalescence should not be shortened in eases recovering promptly under serum treatment, quite the contrary.

VICTIMIZING THE DEAF

The improvement in hearing aids has had in England to the victimization of sufferers by unscrupulous firms who make extravagant claims. Perfect hearing is promised, irrespective of the causation and degree of deafness or the age of the sufferer.

The National Institute for the Deaf is doing valuable work in protecting the public against fraud. It has issued for the information of the deaf a booklet entitled "The Choice of Hearing Aids." The deaf are advised in the first instance to take medical advice as to whether an aid is likely to be beneficial. They are warned of the dangers of exploitation and advised not to sign any contract with a hearing aid purveyor without reading it carefully.

The institute maintains a list of firms on which the deaf can rely for guidance and fair dealing. These firms have agreed to allow an extended trial at home of any instrument subject to payment of five per cent of its value. Thus the deaf can avoid being gulled by misleading advertisements and circulars of firms who refuse this home trial and who decline to make any financial adjustment if the aid sold proves unsatisfactory. As told in a London letter to the AMA Journal, the purchaser of an aid to

hearing is advised to choose a firm whose advertised claims are set forth in moderate terms, to take with him a friend whose voice he knows and who knows his degree of deafness, so that he can make comparison with the vendor's voice, and to insist on a trial of the apparatus at home for a sufficient period, say from two to four weeks. If the instrument does not give satisfaction during this period, it is never likely to do so.

It is pointed out that a carbon microphone can be made more than usually sensitive for a short time by shaking up the granules and adjusting the diaphragm. The granules should therefore be allowed to settle down again before the normal performance of the hearing aid can be assessed. The expense of maintenance, it is pointed out, is greatest for the valve amplifying type, next for the bone conduction type, with its relatively high current consumption, and lowest for the simple telephone type.

Vacillating and dawdling doctors are compared by a recent medical speaker to the chameleon which "nearly busted" trying to change colors to match as he walked across a Scotchman's plaid.

Medical News

Cattaraugus County

A GOOD NUMBER Of doctors "skidded over the various roads to Ellicottville" on Jan. 21 to attend the meeting of the Cattaraugus County Medical Society. Valuable talks on pneumonia were given by Dr. Thomas P. Farmer of Syracuse. Clayton W. Greene, M.D., Professor of Medicine, University of Buffalo; E. S. Rogers, M.D., New York State Department of Health, and E. K. Kline, Dr. P. II., Director of the Cattaraugus County Laboratory.

Dr. S. J. Castilone was elected president of the Medical Staff of the Higgins Memorial Hospital of Olean at the annual meeting. Other officers elected were: Dr. Francis P. Keefe, vice-president, and Dr. Norman

P. Johnson, secretary and treasurer.

Cayuga County

Oppicers of the Cayuga County Medical Society for 1936 are as follows: Dr. George C. Sincerbeaux, of Auburn, president; Dr. Charles T. Yarington, Moravia, vice president; Dr. Cyrus H. Maxwell, Auburn, secretary; Dr. W. A. Tucker, Auburn, treasurer; Dr. M. L. Seccomb, retiring president, Dr. A. K. Bates, Dr. Raymond F. Johnson, Dr. Louis F. O'Neill, Dr. G. Perry Ross, members of the Board of Censors; Dr. C. F. McCarthy, historian.

The Society has started to make a complete history of the society from its founding in 1806 to the present time through the efforts of the society historian, Doctor McCarthy, and other members of the profes-

sion.

A feature of the annual meeting was an exhibition of documents and papers pertaining to the society from the beginning when the major portion of the county was practically a wilderness.

Delaware County

THE 127TH ANNUAL MEETING of the Delaware County Medical Society was held in Delhi on Dec. 18 with fourteen members present. Officers elected were: President, Dr. Orin Q. Flint, Jr.; vice-pres., Dr. Gordon B. Maurer; secretary and treasurer, Dr. William M. Thomson.

The President appointed the following censors: Dr. Charles L. Wakeman, Dr. William M. Thomson, Dr. Thomas L. Craig, Dr. Robert Brittain was elected delegate to the state convention, with Dr. Orin Q. Flint

as alternate.

Dutchess County

MALPRACTICE INSURANCE was discussed at a special meeting of the Dutchess County Medical Society on Dec. 20 by Dr. Frederick E. Sondern, president of the Medical Society of the State of New York, and Dr. Charles Gordon Heyd, chairman of the insurance committee.

Kings County

THE CONEY ISLAND MEDICAL Society has elected the following officers: Dr. Philip I. Nash, president; Dr. Harry J. Diamond, vice president and Dr. Moses A. Bluestone, secretary-treasurer. Through the efforts of the society blood pressure booths which flourished at the resort last summer were found to be illegal and done away with.

DR. SAMUEL SIEGLER has been installed as president of the East New York Medical Society for 1936. The other principal officers are: Dr. Jacob Gutman, first vice-president; Dr. A. H. Marel, second vice-president; Dr. William Levine, treasurer; Dr. Maxwell Katz, assistant treasurer; Dr. Charles Windwer, recording secretary; Dr. Mortimer Kopp, corresponding secretary, and Dr. William Leavitt, historian.

THE CONEY ISLAND HOSPITAL announces vacancies for two assistant physicians for ambulance duty at \$900 with maintenance.

Monroe County

AT THE ANNUAL election of officers of the Monroe County Medical Society on Dec. 17 Dr. Edward T. Wentworth was elected president, Dr. Edward G. Whipple, vice president, and Dr. John J. Rooney and Dr. William A. MacVay were re-elected treasurer and secretary respectively.

Delegates to the state society will be Doctors Warren Wooden, William H. Veeder and W. A. MacVay with Doctors Thurlow T. Huntington, Willis J. Bowen and John J. Rooney as alternates. New members of the Mills Commission are Dr. Arthur M. Johnson and Dr. Albert D.

Kaiser.

Members of the governing board in addition to officers will include Doctor Veeder, retiring president, and Doctors Floyd S. Winslow, Benjamin J. Slater, Warren Wooden, James M. Flynn and Joseph P. Henry.

ESTABLISHMENT OF A Rochester Academy of Medicine Museum as a permanent unit of the Rochester Museum of Arts and Sciences has been announced. The museum, outgrowth of a need long felt by members of

Medicolegal

LORENZ J. BROSNAN, Esq.

Counsel, Medical Society of the State of New York

Malpractice Action Barred by Release

With the continual increase of automobile accidents, and the proportionally great amount of care rendered by physicians to persons so injured, the outcome of damage suits brought by such persons is always a matter of interest to physicians. Treatment rendered to such persons has sometimes led to malpractice suits. Not until very recently, however, has the effect of a settlement between a patient and the person responsible for the original injuries upon such malpractice suits, been definitely established. The New York Court of Appeals has squarely passed upon that question in a case recently decided by it.*

On November 20, 1931, a small child

was struck and run down by an automobile owned by one G. and operated by one F. The child was taken to a nearby hospital for treatment for her injuries, and her care came under the charge of M, one of the surgeons on the staff of that institution. The patient had a stormy course during her confinement, and remained in the hospital

for several months, and during that time she underwent certain operations. On May 22, 1932, her condition had improved sufficiently that she was on that day discharged

from the hospital and from the care of Dr. M.

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In December of the same year, after the settlement with F. and G. had been completed, the guardian brought another action in the Supreme Court on behalf of the child, and on his own behalf as an individual, this time naming the doctor M. and the hospital as defendants. The complaint was that due to the alleged malpractice of M. and the alleged negligence of the hospital through its nurses and doctors, the plaintiffs were entitled to recover \$100,000 as damages. It was claimed that such negligence and malpractice prolonged and aggravated the original injuries, and also

caused other injuries.

An application was made to the Court at Special Term, setting forth the foregoing facts, for a dismissal of the complaint as to the doctor on the grounds that the release of F. and G. released any rights of action against the doctor. The Court, (Mr. Justice Heffernan, now a member of the Appellate Division for the Third Judicial Department), granted the motion in favor of the doctor, and handed down a well written opinion, which said in part:

Where one who has suffered personal injury by reason of the negligence of another exercised reasonable care in securing the services of a competent physician or surgeon and his injuries are thereafter aggravated or increased by the negligence, mistake or lack of skill of such physician or surgeon, the law regards the negligence of the wrongdoer in causing the original injury as the proximate cause of the damages flowing from the subsequent, negligent or unskilled treatment thereof, and holds him liable therefor. * * *

Conceding malpractice on the part of the defendant M. as charged in the complaint it seems to me that the plaintiffs are precluded from a recovery against him. F. and G. were liable not only for the injuries sustained by plaintiffs but also for the malpractice of the attending surgeon and for the expenses of medical attendance. Having that liability in view they settled with plaintiffs, paying them a substantial sum for a release from further liability. At the time the release was given the child had left the hospital and had already suffered from

Medical News

Cattaraugus County

A good number of doctors "skidded over the various roads to Lilicottville" on Ian 21 to attend the meeting of the Cattaraugus County Medical Society Valurable talks on pneumonia were given by Dr. Thomas P. Tariner of Spracise Clyton W. Greene, M.D., Professor of Medicine University of Buffalo, E. S. Rogers M.D., New York State Department of Health, and E. K. Kline, Dr. P. H., Director of the Cattaraugus County Laboratory

Dr S J Castilone was elected president of the Medical Staff of the Higgins Memorial Hospital of Olean at the annual meeting Other officers elected were Dr Francis P Keefe, vice president, and Dr Norman P Johnson, secretary and treasurer

Cayuga County

Officers of the Cayuga County Medical Society for 1936 are as follows Dr George C Sincerbeaux, of Auburn, president Dr Charles F Yarington Morava vice president, Dr Cyrus H Maxwell, Auburn, secretary, Dr W A Tucker Auburn treasurer, Dr M L Seccomb, returning president, Dr A K Bates, Dr Raymond F Johnson Dr Louis F O Neill, Dr G Perry Ross members of the Board of Censors Dr C F McCarthy, Instoran

The Society has started to make a complete history of the society from its founding in 1806 to the present time through the efforts of the society historian Doctor Mc Carthy, and other members of the profes-

51011

A feature of the annual meeting was an exhibition of documents and papers pertuning to the society from the beginning when the major portion of the county was practically a wilderness

Delaware County

THE 127TH ANNUAL METRIC of the Delaware County Medical Society was held in Delhi on Dec 18 with fourteen members present Officers elected were President Dr Orin Q Flint Jr, vice pres, Dr Gordon B Maurer secreting and treasurer, Dr William M Thomson

The President appointed the following censors Dr Charles L Wakeman Dr William M Thomson, Dr Thomas L Craig Dr Robert Brittin was elected delegate to the state convention, with Dr Orin Q Flint

as alternate

Dutchess County

MALPRACTICE INSURANCE was discussed at a special meeting of the Dutchess County Medical Society on Dec 20 by Dr Frederick E Sondern president of the Medical Society of the State of New York, and Dr Charles Gordon Heyd charman of the insurance committee

Kings County

THE CONEY ISLAND MEDICAL Society has elected the following officers Dr Philip I Nash, president, Dr Harry J Diamond, siee president and Dr Moses A Bluestone, secretary treasurer Through the efforts of the society blood pressure booths which flourished at the resort last summer were found to be illegal and done away with

DR SAMUFI SIFGIER has been installed as president of the East New York Medical Society for 1936 The other principal officers are Dr Jacob Gutman, first vice president, Dr A H Marel, second vice president, Dr William Levine, treasurer, Dr Maxwell Katz, assistant treasurer, Dr Charles Windwer, recording secretary, Dr Mortimer Kopp, corresponding secretary, and Dr William Leavitt historian

THE CONEY ISLAND HOSPITAL announces vacancies for two assistant physicians for ambulance duty at \$900 with maintenance

Monroe County

AT THE ANNUAL election of officers of the Monroe County Medical Society on Dec 17 Dr Edward T. Wentworth was elected president, Dr Edward G Whipple, vice president, and Dr John J Rooney and Dr William A MacVay were re elected treasurer and secretary respectively

Delegates to the state society will be Doctors Warren Wooden, William H Veeder and W A MacVay with Doctors Thurlow T Huntington, Willis J Bowen and John J Rooney as alternates New members of the Mills Commission are Dr Arthur M Johnson and Dr Albert D

Kaiser

Members of the governing board in addition to officers will include Doctor Veeder, retiring president, and Doctors Floyd S. Winslow, Benjamin J. Slater, Warren Wooden, James M. Flynn and Joseph P. Henry

ESTABLISHMENT OF A Rochester Academy of Medicine Muscum as a permanent unit of the Rochester Museum of Arts and Sciences has been announced The museum, output of a need long felt by

the academy for a place where interesting and valuable source material in the fields of medical history and art might be collected, classified, exhibited and studied, has been set up through an agreement between trustees of the academy and the board of commissioners of the municipal museum.

The museum will be operated as an active teaching museum accessible to all citizens of the community who have a legitimate interest in the historical, art or scientific aspects of medicine.

While an effort will be made to build up permanent exhibits, it is planned to have special and rotating exhibitions on subjects which may be timely to physicians and stu-

dents of public health.

Issuing an appeal for donations to the museum of old medical books and paraphernalia such as infant feeding bottles, curious medical bottles, instrument of varikinds, family medicine books amulets to ward off disease, the academy asks that donations be sent to the museum at Edgerton Park or to the Academy of Medicine, No. 13 Prince Street.

New York County

THE NEWLY ANNOUNCED discovery of a nasal spray to prevent infantile paralysis opens an entire new field for experimentation in control of the dread disease, Dr. Park said on Dec. 27. Dr. Park has been experimenting for three years with paralysis vaccine. He said:

"I am still hopeful, but no longer confident, about the ultimate success of any vac-

cine to prevent paralysis.

"Perhaps this spray method of immunization is the simplest solution we have all been

seeking."

Infantile paralysis, Dr. Park said, is almost wholly a disease of the nervous system. He has become convinced that the germ

does not get into the blood at all.

The serum method of treatment has failed completely in cases where the disease was contracted, according to Dr. Park, because the serum reaches only the blood and not the nervous system. For this reason, he is "discouraged" as he contemplates the possibility of ultimately vaccinating successfully to prevent the disease. He said:

"We do know definitely that the germ of infantile paralysis is contracted through the nose and affects the central nervous system. We seem unable to reach the nervous system, but if we are able to change the composition of the mucus to resist the paralysis virus, perhaps we shall have a real pre-

ventive."

The spray, a solution of either sodium alum or tannic acid, was developed by doctors at the Rockefeller Institute, who announced the results of their work at the convention of the Society of American Bacteriologists.

The immunity provided by the present spray is apparently short-lived, it was admitted. From tests on monkeys the doctors' ascertained that, although they seemed to be immune immediately after being treated, in one or two months they were again susceptible.

DR. WILLIAM HALLOCK PARK, noted bacteriologist and hygienist, retired on his seventy-second birthday anniversary, Dec. 30, from active work as director of the New York City Bureau of Laboratories of the

Department of Health.

Dr. Park, under an arrangement worked out by Mayor La Guardia with his acquiescence, will take a six months' vacation, after which he will retire permanently from the directorship and become director emeritus of the bureau. He has held the post fortyone years.

It is expected that at the end of the vacation, the new William H. Park Research Laboratories, named in his honor, will have been completed, so that they can be dedicated while Dr. Park is still nominally in the city's service. He expects to continue working at the laboratories in an advisory capacity.

Dr. Ralph Muckenfuss, acting associate director, will be in charge during Dr. Park's vacation. Dr. Park needed a rest because he has been overworking of late, his associ-

ates said.

Oneida County

THE NEW OFFICERS of the Oneida County Medical Society are: President, Dr. Dan Mellen, of Rome; vice-pres., Dr. William Hale, Jr., of Utica; secretary, Dr. James Irving Farrell; treasurer, Dr. H. D. Mac-Farland; librarian, Dr. T. Wood Clarke; board of censors, Drs. M. D. Graham, W. B. Roemer, F. J. Rossi, H. N. Squier, all of Utica, and Dr. R. B. Gregory, Rome, Dr. Higa. Utica, and Dr. P. P. Gregory, Rome. Dr. Andrew Sloan and Dr. William Hale, Jr., were named delegates to the House of Delegates. The third delegate, who holds over, is Dr. E. M. Griffith, Chadwicks.

The alternate named was Dr. John F.

Kelley.

Dr. G. M. Fisher, whose place Doctor Hale took as delegate, resigned after thirty years' service in that position, during part of which time he served as state president.

Doctor MacFarland, treasurer, reported the largest balance the society ever has had.

Onondaga County

A MAN WHO attended the annual election of officers of Syracuse Academy of Medicine in 1900 as a newspaper reporter was elected president of the organization on Dec. 17. He is Dr. Edwin H. Shepard, consulting physician of General Hospital of Syracuse. Other officers elected were: vice president, Dr. Mortimer G. Brown; secretary, Dr. Leon E. Sutton, and treasurer, Dr. Foster C. Rulison.

FEDERAL FUNDS have recently been made available for the erection of a new building for the University of Syracuse School of Medicine. The new building will be a new unit in a medical center that now contains the City Hospital, Syracuse Memorial Hospital, and the Syracuse Psychopathic Hospital. It will be three stories high and will cost \$1,250,909, according to the Syracuse Herald. It is expected that the building will be completed within a year.

Oswego County

Dr. Ross F. Wolever, of Fulton, was re-elected president of the Oswego County

Medical society on Dec. 17.

Other officers elected were: Dr. Olin J. Mowry, Minetto, vice president; Dr. J. J. Brennan, Oswego, secretary; Dr. J. B. Ringland, Oswego, treasurer; Dr. William McD. Halsey, Oswego, censor.

Dr. Harwood Hollis of Lacona was elected delegate to the New York State Medical society and Dr. Mowry was selected

as alternate.

Queens County

The Medical Society of the County of Queens heard Dr. Morris Fishbein, Editor of the A.M.A. Journal, speak on "Medicine in a Changing World" at its meeting on January 28. Dr. Frederick E. Elliott, Chairman of the State Economics Committee, and Dr. Vincent Juster, Chairman of the County Economics Committee, discussed medical economics, and Dr. James M. Dobbins delivered his inaugural address as president of the society.

Rockland County

Officers of the Rockland County Medical Society for 1936 are as follows: President, Dr. Alexander N. Selman, of Spring Valley; vice president, Dr. George W. Unsworth of Suffern; secretary, Dr. William J. Ryan, of Pomona; treasurer, Dr. Dean Miltimore, of Nyack; censors, Dr. Charles D. Kline of Nyack, Dr. Royal F. Sengstacken of Suffern, Dr. George A. Leitner of Piermont, Dr. Matthew J. Sullivan of Haverstraw and Dr. Stephen R. Monteith of Nyack; Dr. George A. Leitner, delegate to State society, and Dr. Stephen R. Monteith, of Nyack, alternate.

Ulster County

Dr. Edwin C. Fassett of Kingston was elected president of the Ulster County Medical Society, and Dr. Fred Voss of Kingston vice president, on Dec. 17 at a meeting and supper at the Goyernor Clinton Hotel in Kingston. The Medical Society had as guests the Ulster County Bar Association, and the principal speaker was Dr. Harrison S. Martland, professor of forensic medicine at New York University. He took as his subject the medical detection of crime, comparing the medical examiner system with the older coronal method of investigating such cases.

Warren County

THE WARREN COUNTY Medical Society, through the chairman of its legislative committee, Dr. E. B. Probasco, of Glens Falls, has sent a letter to Congressman W. D. Thomas urging a stronger neutrality law. It

says in part:

"Let the Congress enact a law making it a penal offense to manufacture for or ship, directly or indirectly, to any foreign country, then at war, any munitions of war or raw materials capable of being fabricated into such munitions.

"Let responsibility for violation of this law rest on executive officers or managing directors of corporations, members of firms, partnerships, companies or individuals; and let such violations be punished by imprisonment for a term of years and accompanied by a heavy fine."

Westchester County

STARTING A NEW policy, the Scientific Committee of the Medical Society of the County of Westchester is planning a two or three year comprehensive series of lectures or papers, covering all the major fields and problems of medical and surgical science. Each of the papers will be presented by a prominent teacher or practicing exponent in his subject, and each will be, as far as possible, essentially a practical review of the latest proven and accepted advances in diagnosis and treatment in the particular field The entire series, it is hoped, may constitute a useful, integrated post-graduate course of everyday practical value to the active prac-titioner. The first paper was presented on Jan. 21 at a meeting of the society at Bloomingdale Hospital, White Plains, by Dr. Francis G. Blake of New Haven, Sterling Professor of Medicine in the Department of Internal Medicine at Yale University School of Medicine, on "The Diagnosis and Treatment of Respiratory Diseases."

Medicolegal

LORENZ J. BROSNAN, ESO. Counsel, Medical Society of the State of New York

Malpractice Action Barred by Release

With the continual increase of automobile accidents, and the proportionally great amount of care rendered by physicians to persons so injured, the outcome of damage suits brought by such persons is always a matter of interest to physicians. Treatment rendered to such persons has sometimes led to malpractice suits. Not until very recently. however, has the effect of a settlement between a patient and the person responsible for the original injuries upon such malpractice suits, been definitely established. The New York Court of Appeals has squarely passed upon that question in a case recently decided by it.*

On November 20, 1931, a small child was struck and run down by an automobile owned by one G. and operated by one F. The child was taken to a nearby hospital for treatment for her injuries, and her care came under the charge of M, one of the surgeons on the staff of that institution. The patient had a stormy course during her confinement, and remained in the hospital for several months, and during that time she underwent certain operations. On May 22, 1932, her condition had improved sufficiently that she was on that day discharged from the hospital and from the care of Dr. M.

Two days later the child's father had himself appointed guardian ad litem of the child, and during June 1932 he brought an action on behalf of the child in the Supreme Court to recover damages for the injuries sustained against F. and G. The father also brought a separate action against F. and G. for the loss of the infant's services and for the expenses he had incurred for her care and treatment. After that action had been started negotiations were entered into be-tween the parties to that action which resulted in August of that year in the settlement of the two actions. The settlement of the infant's action of course was made pursuant to an order of a Justice of the Supreme Court approving the settlement. At the time the order was so made the papers before the Court set forth the condition of the child at that time, and made reference to the care and treatment that the child had received. Thereupon the infant's action was settled by payment of somewhat

* Milks v. M., 14X Misc. 297, 264 N. Y. 267.

over \$3,000 to the guardian and the father's individual action was compromised by the payment to him of \$4,500. The father, pursuant to the Court's order as guardian ad litem executed a general release to F. and G. and also executed a similar release

to them in his personal action.

In December of the same year, after the settlement with F. and G. had been completed, the guardian brought another actionin the Supreme Court on behalf of the child, and on his own behalf as an individual, this time naming the doctor M. and the hospital as defendants. The complaint was that due to the alleged malpractice of M. and the alleged negligence of the hospital through its nurses and doctors, the plaintiffs \$100,000 were entitled to recover It was claimed that such negligence and malpractice prolonged and aggravated the original injuries, and also caused other injuries.

An application was made to the Court at Special Term, setting forth the foregoing facts, for a dismissal of the complaint as to the doctor on the grounds that the release of F. and G. released any rights of action against the doctor. The Court, (Mr. Justice Heffernan, now a member of the Appellate Division for the Third Judicial Department), granted the motion in favor of the doctor, and handed down a well written

opinion, which said in part:

Where one who has suffered personal injury by reason of the negligence of another exercised reasonable care in securing the services of a competent physician or surgeon and his in-juries are thereafter aggravated or increased by the negligence, mistake or lack of skill of such physician or surgeon, the law regards the negligence of the wrongdoer in causing the original injury as the proximate cause of the damages flowing from the subsequent, negligent or un-skilled treatment thereof, and holds him liable therefor. * * *

Conceding malpractice on the part of the defendant M. as charged in the complaint it seems to me that the plaintiffs are precluded from a recovery against him. F. and G. were liable not only for the injuries sustained by plaintiffs but also for the malpractice of the attending surgeon and for the expenses of medical attendance. Having that liability in view they settled with plaintiffs, paying them a substantial sum for a release from further liability At the time the release was given the child had left the hospital and had already suffered from

the alleged malpractice. These were all matters that could have been enforced against the original wrongdoers under their liability for damages and the settlement was clearly made with a view to covering all these elements of damage. They were known to exist by the parties to the release and the settlement was made with reference to them. In view of the fact that F. and G. were liable for the negligence of the defendant M. in improperly treating the child then the release included such damages and is a bar to the present action. The release having been made in full settlement of all existing claims precludes the plaintiff from bringing a second action for malpractice against the surgeon, occupying somewhat the position of a joint tort-feasor to recover double compensation. The fact that the plaintiffs now say that they did not intend to release M. is immaterial; a release of the original wrongdoers releases him regardless of the intent of the plaintiffs.

The plaintiff carried the ruling up on appeal and the Appellate Division without opinion affirmed the ruling of the Court below. The decision was one which involved a question of law never before actually passed upon by our higher Courts, and the case finally reached the Court of Appeals. That Court came to the same conclusion and affirmed the previous rulings. Its opinion written by Judge Lehman stated in part the following:

The general release of all claims against the original tort-feasors was made without reservation. A general release to one tort-feasor made without reservation creates a bar to an action for damages against another tort-feasor arising from the same injury. A physical injury sustained through the negligence of one person may be cured by the skill of a physician, or aggravated through his negligence. The negligence of the physician may then give rise to a cause of action against him, to recover the damages which the injured person would not otherwise have sustained. It may be argued that the original wrongdoer who caused the injury and the physician whose negligence aggravated the injury are not, in technical sense, joint tort feasors. Nevertheless their wrongs coalesced and resulted in damage which would not have been sustained but for the original injury. A wrongdoer is responsible for the proximate result of his wrong. What constitutes a proximate result is not a problem of stitutes a proximate result is not a protein of philosophy. "The law solves these problems pragmatically." Fortiuitous circumstances may divert the flow of cause to effect from its natural course. New streams of greater volume and force may join the flow. Liability for damages caused by wrong ceases at a point dictated by public policy or common sense. In some situations the courts have established a definite rule of limitation. In others the test is one only of degree. The rule is now well established that a wrongdoer is liable for the ultimate result, though the mistake or even negligence of the physician who treated the injury may have in-creased the damage which would otherwise have followed the original wrong. In such case satisfaction by the original wrongdoer of all damages caused by his wrong bars action against the negligent physician who aggravated the damage. The law does not permit a double satisfaction for a single injury.

Subsequently the ruling was held to apply equally to the hospital by the Court at Special Term. The opinion upon that ruling included the following language:

The rule applicable to the defendant M. must likewise be applicable to the defendant hospital. Prior to the compromise and settlement and prior to the commencement of this action the plaintiff had left the hospital, and the settlement was necessarily based on her then present condition. The original wrongdoers F. and G. were the cause of the infant plaintiff going to the hospital and remaining there as a patient. Whatever her condition may have been at the time of the settlement was due primarily to the accident. Whatever transpired at the hospital was before the court and was considered in arriving at the amount of damages.

The justice of the rule established by this case seems apparent. There must be some degree of finality to litigation. If the rule had not been so established, many persons injured in automobile accidents after collecting for their injuries from the parties originally responsible, might thereupon, having found themselves successful thus far, greedily and unjustly seek to collect more money for themselves from the very doctors who had been the cause of their being healed of their injuries.

Removal of Superfluous Hair

The plaintiff, a young unmarried girl, consulted a physician complaining of hair on her face. He found that she had what amounted to almost a complete beard on her face, chin, and neck. She told the doctor she had previously undergone electrolysis treatments at a beauty parlor. He decided to administer further electrolysis treatment to her and did so intermittently from time to time over a period of about two years. During the treatment certain keloids formed on her face and the doctor treated them from time to time with applications.

Subsequently an action was brought against the doctor charging that improper treatment on his part had caused the development of the keloids. The case came on for trial and the claim was made by the plaintiff that he had continued electrolysis treatment in the region of the keloid but the doctor denied that he had done so.

At the conclusion of the entire case the Court dismissed the plaintiff's complaint thereby exonerating the doctor of the charges which had been brought against him.

Across the Desk

Opportunity With a Big O for Medicine

As you READ these lines, thousands of enumerators are busily going from house to house in city and rural areas all over the land, to discover the extent of disabling illness that exists, and to find how much of it has had medical, nursing, and hospital care. Probably nothing that the government has ever done has been fraught with greater possibilities to the medical profession, for good or ill.

In our own State, the entire populations of Hudson, Newark, Penn Yan, and Schenectady are being canvassed, and portions, or "samples," of New York City, Buffalo. and Syracuse. The number of physicians. nurses, hospitals, and other health facilities in every region are already a matter of record, and need no special inquiry by the gentlemanly and ladylike canvassers recruited from the "white-collar" members of our great army on the relief rolls. When the extent of disabling illness has been found, and the amount of medical and nursing care is put alongside it for comparison, then we are to see what is needed to bring the health of the people to a better level.

It would seem a sure bet that a great amount of illness will be found to be without proper medical and nursing care, and Opportunity with a big O will be presented to the profession to render greater service. Instead of "too many doctors," we shall find that there are far too few. If our medical leaders are alert with plans to meet the situation revealed, then the schemes of the socializers will be thrown back upon themselves, like the fate of the horse doctor who tried to blow a laxative powder down the animal's throat through a quill. horse blew first! The brain trusters are reported ready to use the findings of the canvass as ammunition for their campaign for state medicine, but if the medical leaders "blow first," a sound plan may go through instead of a bad one. "Thrice blest is he who gets his blow in first."

To Dull Grim Reaper's Scythe a Bit

The thought back of the investigation is that the prolongation of human life from a forty to a sixty year expectation in our time has been mostly due to the conquest of the infectious ills of childhood. It is now proposed to study the causes of the chronic ailments and disabilities of middle life, often associated with occupation, habits, and financial position. The findings will give a basis of facts on which to build plans to prevent and control these chronic and disabling diseases. The canvassers are interviewing some 750,000 families in about ninety-five cities and towns, and a total of 5,000 to 6,000 persons are engaged in the work. The interviews are to be completed by March 15, then the statisticians will be turned loose on the huge mass of findings and will sort, file and index it so that we can know as a nation just how sick or well we are, what is the matter with us, how many of us have wooden legs or glass eyes. and how many have medical, nursing, and hospital care.

Statements of families that they have had this or that disease will be verified by asking their doctors, so that the data will have a certain scientific basis, and not be merely a loose record of ills that people imagine they had. The term "doctor" in this investigation, by the way, "is not limited to the medical profession," according to the official book of instructions to the canvassers, but "osteopaths, Christian Scientist healers, etc., are included. Do not raise the question of cults. Simply enter doctor as Dr. ——." This should be remembered in evaluating the returns when they appear.

"Disabling Illness" May Be Trifling

A "disabling illness" in this inquiry is defined as "one that keeps a person from working or from following his usual pursuit for at least a day." If a cold keeps a child at home from school for one day, that is entered in the returns as a "disabling illness." Many have supposed this term to mean an illness that makes work impossible for a long period, perhaps for life, but it appears that "for a housewife, it is an illness which keeps her from doing her usual housework." (sic.) A large number of the "disabling illnesses," therefore, may really be too trifling to need a doctor, a nurse, or a hospital, and the public should not be

stampeded into a belief that a mass of tragic suffering is going without medical attention A "disabling illness" of seven or more days duration is entered in another column, but we all know that such indispositions, too are often of slight importance

Hospital and institutional care, deaths, operations, missing fingers, legs or arms, deformity, paralysis, hernia, blindness, deafness, accidents in home, shop, or streets, canes, crutches, trusses, braces, artificial arms and legs, etc., are all entered in various Particulars about smallpox and diphtheria, vaccination and immunization, are jotted down Details about toilet arrangements are tactfully extracted family income is asked and set down and, rather oddly, the canvasser is required to find out if any member of the family is a veteran who ever served under the U S flag, his rank, and his pension or any compensation received from the U S Government for military service. Just what place this has in a national health inquiry is not stated

However, in all the maze of detail, the serious illnesses, too, will be listed in their appropriate places, and we shall, or should, learn how many of them had, or had not, medical and nursing attendance. The re turns will be public documents, and should be open to the inspection of all and no juggling or hocus pocus of the figures for political purposes should be permitted.

"Look Away Down South to Dixie"

ONE WIDEAWAKE STATE medical society, at least, is taking time by the forelock and is gathering material to defend its members against any attempt to regiment or socialize The State Medical Association of Georgia has been asking the U.S. Public Health Service for several years to make such a health survey as is now on, and it is completing the picture by a survey of Georgia physicians A questionnaire has been sent to every doctor in the state, asking if his practice is urban or rural, how long he has practiced medicine, his approximate net income approximate expense, approxi mate uncollected accounts, amount of charity practice value of medicines furnished free, county provisions, if any, to pay doctors for care of charity patients, county laboratory and hospital facilities, amount of post graduate instruction received, membership in county medical society, regularity of attendance, and suggestions for improving the health of his community and increasing financial returns from medical practice The officers of the name is to be signed State Medical Association, we are told hope to use this information when obtained to promote the interest and welfare of our members and the people without means to pay for adequate medical care. This survey may be of mestimable value to promote legislation which our profession sponsor, or to defeat legislation which might be to our detriment"

The "Sample Racket"

THE MORE WE LOOK into the trickery practised by certain unscrupulous drug stores, the clearer it is that the doctor, for his own protection and that of his patient, should see that his prescriptions are filled by chemists who carry honor and conscience as part of their stock in trade. If these are times that try men's souls, it must be said that many of the souls are giving way under the strain and deserve to have their next trial in the police court Amid all the "rackets" exposed day by day we now have the "sample racket," which is rousing condemnation in the medical and pharmaceutical It seems that hawkers have been going about, visiting doctors' offices and buying up from office boys or secretaries old samples that have been cluttering up desk drawers and closet shelves for anywhere from six weeks to six years The racket is so well organized, we are told that regular collections are made of bags at \$1 each and baskets at \$2, regardless of the ourlity of what is in them

The racketeers then take these old samples, perhaps mert or even injurious from age, freshen up the labels, change dates of expiration of potency, and sell them to the drug trade at discounts ranging from 25 to 50 per cent below legitimate prices. They are placed in with the regular stock and sold as fresh to the unsuspecting purchaser. When the patient fails to improve as expected, the doctor perhaps changes the prescription to another product, and another old sample may be handed out, with the same result.

This news may be an eye opener to some of our own readers, as the racket is reported flourishing in New York City and Brooklyn Chicago is also affected Interviews with

reputable pharmacists and medical manufacturers indicate widespread chicanery by conscienceless drug swindlers whose proper place is behind the bars, looking out. The victims are the doctor and his patient, and it is clearly to the doctor's interest to encourage the more honorable sort of pharmacists, who at least will be working with him, and not against him. The ethical chemist, too, is being run hard by these unconsionable scalawags, who are cutting into his trade terrifically, and, unless we wish the better grade of chemists to disappear, we must stand by them in this crisis.

Our "Era of Too Much"

It is possible that the fantastical times we live in may be known in future history books as "the era of too much." We have too many people for the number of jobs, and too much food for them to eat. We have "too many doctors," some say, yet too many people lack proper medical care. We have too much machinery, too many laborsaving devices, so the factories shut down and there is no work at all.

Malthus became famous because he proved that populations would grow to the point where they would encroach upon the means of subsistence, eat up all the food, and starve to death. Instead of that, we pay the farmers to plow their crops under and slaughter little pigs by millions because the markets are surfeited with provisions. Malthus was a clergyman, and his neat remedy for overpopulation was to persuade people to exercise marital self-restraint. The good man does not appear to have been entirely successful in this appeal, for in the 138 years since his book came out the population of England has quadrupled and that of continental nations like Germany and Italy has doubled. That is one explanation of Italy's raid on Ethiopa, to find a place for its surplus sons.

Over on the other side of the globe we see the same thing. Only a few years ago Japan's population was growing at the rate of half a million a year; a little later it was three-quarters of a million; now it is a full million a year. It is like a steam boiler, with the pressure going up, up, up. An explosion had to come, and we see the eruption overflowing Korea, Manchuria, and North China. All caused by too much. The statistical sharps inform us that the population of the globe has quadrupled in the last 300 years, and instead of slowing up, the increase is accelerating. Interesting times ahead.

Books

The Woman Asks the Doctor. By Emil Novak, M.D. Octavo of 189 pages, illustrated. Baltimore, Williams & Wilkins Company, 1935. Cloth, \$1.50.

In no other phase of medicine is it so easy to get the attention and capture the imagination of the lay reader, as on the subject of sex. And, in no other part of medicine is it so easy to make misstatements, gross errors, deliberate and gross exaggerations, and to indulge in purely imaginative meanderings. Little wonder, therefore, that the past ten years has seen the book market literally flooded with sex books of all shades and variety, each purporting to explain all phases of womanhood and fathoming the secrets of sex. Many of these are not authoritative, convey false information and are merely designed to be "sexy".

Indeed, very few books are there for the layman, which give authoritative information on such important topics as, menstruation, ovulation, menopause, sterility in women, the relation of the glands of internal

secretion to female function, etc., without the book becoming a sort of "laymen's textbook in gynecology". The publication, therefore of "The Woman Asks the Doctor", by Dr. Emil Novak, is a distinct contribution to the literature on the subject for the intelligent laity.

Being written by Dr. Novak, the book carries at once the stamp of authority and conservativeness. It is written in an easy, simple and interesting style. The author states repeatedly, that the book is not designed to be a miniature textbook in gynecology; and that for any abnormal symptoms or signs, that the reader consult her physician. The book covers the most important phases of woman, viz., puberty, menstruation, reproduction, sex glands, sterility, cancer and the menopause. Simple diagrammatic drawings illustrate the book throughout.

Every woman should own a copy and

read it several times.

J. HALPERIN

Diseases of the Mouth and Their Treatment: A Text-Book for Practitioners and Students of Medicine and Dentistry. By Herman Prinz, D.D.S., M.D., and Sigmund S. Greenbaum, M.D. Octavo of 602 pages, illustrated, Philadelphia, Lea & Febiger, 1935. Cloth, 2000.

Herman Prinz of the University of Pennsylvania has been recognized as a world authority on dental therapeutics and materia medica. He is therefore well fitted

for his task.

This book which has been especially prepared for the physician and dentist is a thorough compilation of all important information concerning diseases of the

mouth and their treatment.

It first gives a very good resume of the embryology, anatomy and physiology of the oral cavity. It then systematically describes the oral manifestations of metabolic disturbances, blood disorders, infectious diseases, skin diseases and parasitic and tropical conditions.

The chapters on the diseases of the tongue and salivary glands are very interesting and up to date as are those on the other parts

of the buccal cavity.

In addition there is a chapter on oral hygiene and prophylaxis, and one on therapeutic suggestions which should be very helpful to the practitioner.

In the entire book, the authors have endeavored to combine the viewpoint of the physician with that of the dentist, and have succeeded to treat the entire subject-matter as a medico-dental problem which it is.

There is no doubt that this book will fill an evident hiatus in the medical literature and the reviewer is very happy to recommend it very highly to the student and practitioner of medicine and dentistry.

OSCAR RODIN

Ideal Health or the Laws of Life and Health, By Alexander Bryce, M.D. Third edition. Duodecimo of 340 pages, illustrated. Baltimore, William Wood & Company, 1935. Cloth, \$2.00.

The author of this book—"Ideal Health"—has made an amhitious effort to keep his readers healthy with lots of rules that in themselves are, in the main reliable, but when taken collectively seem to so complicate the issue as to make the reviewer wonder how many of these rules the reader can or will observe, and to what extent he may benefit by observing all these rules. The plan of this book is dogmatic, and

The plan of this book is dogmatic, and each of the chapters is headed by a commandment—much like the ten commandments—which forms the basis for each sermon or chapter. The reviewer questions the wisdom of applying a biblical approach to things medical, especially when contours to the control of the control of the plant of the plant of the control of

troversial issues must often be faced and explained away. Moreover, the book is too lengthy and too detailed.

EMANUEL KRIMSKY

Arthritis and Rheumatoid Conditions their Nature and Treatment. By Ralph Pemberton, M.D. Second edition. Octavo of 455 pages, illustrated. Philadelphia, Lea & Febiger, 1935, Cloth, \$5.50.

This book presents a full picture of arthritis in all its phases by an author who has spent many years in a careful study of the disease. It is first discussed as an economic and social problem. The most frequent sites of focal infection in civilian life were found to be the dental, nose and throat and genito-urinary in the order named. The prostate is considered to be of importance.

The idea that allergic phenomena provide the mechanism for the arthritic symptoms is stated to have many supporters. The pathology of the two types, atrophic and hypertrophic, which are the terms preferred by the author, is fully discussed. He believes that it can not be concluded with absolute certainty that the two types are wholly discrete although clinical and pathological separation is justified and necessary.

The author's opinion as to the value of various forms of therapy is fully stated and diet and physiotherapy especially described in detail. He believes that it is not settled how much of the influence of vaccines, when helpful, is to be attributed solely to a specific influence and how much to a more generic reaction, possibly of the nature of a non-specific protein reaction. Throughout, the book will be found to be an authoritative and conservative guide to the subject.

W. E. McCollon

Recording of Local Health Work. By W. F. Walker, Dr. P. H., and Carolina R. Randolph. Quarto of 275 pages, illustrated. New York. The Commonwealth Fund, 1935. Cloth, \$2.00.

This volume is of particular interest to health officers. As emphasis is being placed at present on the fact that the practicing physician is "The Utimate Health Officer" it may interest him to note how records should be kept for purpose of easy and fair comparison. Unless facts are based on similar premises they cannot be compared. At least half of the subjects that are considered concern communicable diseases and matters of individual hygiene-all subjects of practical importance to the general practitioner in his daily work. The records suggested are simple and concise; if used generally by the health officers a proper evaluation and comparison of health work will be possible. A. E. SHIPLEY

Physiology in Modern Medicine. By J. J. R. MacLeod, M.B. Seventh edition. Octavo of 1154 pages, illustrated. St. Louis, C. V. Mosby Co., 1935. Cloth, \$8.50.

MacLeod's Physiology has been a standard text book since its first edition appeared in 1918. It is unfortunate that, MacLeod, a great master of physiology, a Nobel prize winner for his role in the discovery of insulin, and a leading contributor to the physiology of metabolism has recently died. He did not live to see the last (7th) edition of his book off the press. He has in this volume received the cooperation of such physiologists as Bard, Carter, Olmsted, Peterson and Taylor. It is natural that the section on metabolism should comprise almost a third of the book. It is of course presented authoritatively, for the author and his pupils have added a good portion to our present day knowledge of this subject.

The book will undoubtedly remain an important text and reference book in general physiology for some years to come.

WILLIAM S. COLLENS

The Diseases of the Endocrine Glands. By Hermann Zondek, M.D. Third edition. Octavo of 492 pages, illustrated. Baltimore, William & Wilkins Company, 1935. Cloth, \$11.00.

Zondek's endocrinology, published years ago in Germany and brought up to date for its present translation, is an important book. It is written by a man who has contributed substantially to the advancement of endocrinology both as a laboratory investigator and as a clinician. While his eminence as a research worker should not be minimized, his real field and acknowledged predilection is in the line of clinical diagnosis and therapy. His treatise is primarily the contribution of the physician for whom the endocrine glands are not organs apart, but components of the whole body, both influencing the latter and partak-ing in its reaction. Thus endocrinology appears as a part of internal medicine, while medicine cannot be practised intelligently and progressively without a thorough understanding of endocrine physiology and pathology.

Zondek's work differs fundamentally from other contributions on the subject by his arrangement of the material according to diseases, independent of their glandular origin. Lead by the conviction that all other glands participate in the disorder in the majority of the cases, discussion under the heading of one, albeit the most prominently involved gland, does not seem

warranted.

Some of Zondek's basic tenets are cited in his preface and are well worth to be born in mind as guiding thoughts in the confusing mass of observations on endocrine patients. Thus according to Zondek: 1./ a hormonal effect is not an absolute but a variable quantity, depending upon the momentary physico-chemical condition of the cells on which it acts; 2./ changes of endocrine glands are not always the cause of disease but in many cases the reaction to morbid processes primarily located in other organs; 3./ the endocrine system is but one link in the chain of vegetative functions of the organism.

Zondek's book was not written for the needs of the general practitioner; it contains perhaps more theory than the busy practising physician has time to digest. It serves admirably the purpose of the man who specializes in internal medicine, yet was unable to devote detailed studies to the problems of glandular physiology and pathology. Stimulating to thought and full of challenging ideas it will be appreciated most by the student of endocrinology.

M. A. GOLDZIEHER

Physical Diagnosis. By Warren P. Elmer, M.D. Seventh edition. Octavo of 919 pages, illustrated. St. Louis, C. V. Mosby Co., 1935. Cloth, \$8.00.

This book is divided into two parts. Part I deals with the technic of physical examination including a section on normal electrocardiography and radiology in physical diagnosis. This section is well presented and profusely illustrated. It is rather surprising that ten pages are devoted to polygraphy. Herpes is mentioned as occuring in typhoid fever contrary to the usual experience. Under myosis the action of morphine on the pupils is omitted, under blue scerla fragilitas ossia is not mentioned and under bilateral ptosis no mention of myasthenia gravis is made.

Part II includes diseases of the respiratory and circulatory system. This section is

excellent, concise and complete.

The clinical pathology, physical signs, diagnosis and differential diagnosis are well presented, including the radiographic diagnosis.

On the whole this latest edition of this work is a worth-while addition to the

student's and practitioner's library.

HENRY JOACHIM

Martini's Principles and Practice of Physical Diagnosis. By Robert F. Loeb, M.D. Duodecimo of 213 pages, illustrated. Philadelphia, J. B. Lippincott Co., 1935. Cloth, \$2.00.

This small volume of about two hundred pages is an excellent presentation of physical signs, their significance, interpretation and mechanism. The book can be recommended to the medical student as an elementary exposition on physical diagnosis, and to the practitioner of medicine for a hasty review and brushing up.

Henry Joachim

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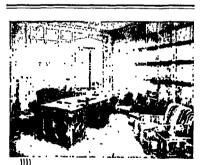
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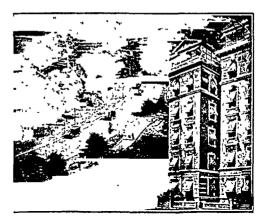
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"If we work upon marble it will perish. If we work upon brass, time will efface it. If we rear temples, they will crumble in the dust. But if we work upon immortal souls, if we imbue them with principles, with the fear of God and love of our fellowmen, we engrave on those tablets something which brightens all eternity."

The father's biggest business is to see that his sons and daughters are heading in the right direction. The director of a great school makes this appeal to fathers under the heading: "That boy of yours!"

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from your own affairs, you are faced with the realization that he is growing up-that he and you are out of touch. Your boy is your greatest business. The years between ten and twenty mark the turning of the tide in a boy's life. Then boys often think parents unreasonable, harsh, unsympathizing. Parents often think boys secretive, callous and unresponsive. Left to chance, a boy in his teens may become anything. A mistake may be fatal. A really great school may save him, for it is engaged in the greatest business in the world—the making of men."

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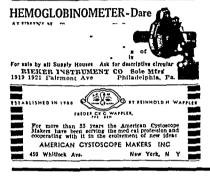
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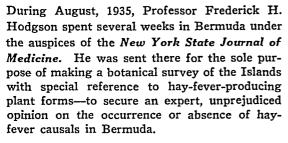
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"PASSED A HUNDRED PER CENT AS A SANCTUARY TO: HAY-FEVER SUFFERERS"



This survey included a thorough inspection of the plant forms active in August, a careful study of flora active at other times, and interviews with disinterested persons. Professor Hodgson's findings were published in a report which gave new official confirmation of an old truth about Bermuda. To quote from his report: "... the Colony passed a hundred per cent as a sanctuary for hay-fever sufferers."

Frost, too, is unknown in these lovely coral islands. And motor traffic, smoke, and clamour.

Instead, visitors here find a favourable climate the year around. They find splendid golf courses; game-fishing; sailing; tennis courts of turf and en-tout-cas; they find warm beaches of pink sand, and crystal-clear surf for invigourating sea-bathing even while the far-off New York skyline is blurred by cold wind and sleet. Bermuda, in short, is an unsurpassed, twelvemonths-in-the-year source of those two treasures—Pleasure and Health.

Mark Mary

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"BUT CAN I AFFORD BERMUDA?"

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Travel and Hotels

For Washington's Birthday

The first week-end holiday this year comes as a rather welcome treat with undoubtedly a milder weather condition suggesting the approach of Spring.

For those of us with sea-faring inclinations, several cruises are offered among which the most outstanding will be the Bermuda Cruise of the United States Liner Manhattan and one scheduled for the "Oueen of Bermuda" of the Furness Bermuda Line.

The cruise of the Manhattan is for four days and this splendid steamer is so well known that it is hardly necessary to describe its de luxe cabins and other rooms, its dining rooms and cuisine, sports decks, cafes, etc. Rates for the cruise begin at fifty dollars.

The special holiday cruise of the "Oncen of Bermuda" is for four days with a stopover in Bernuda and ample time to enjoy that island's sports and social activities. Optional stopovers in Bermuda on a special arrangement of eight, eleven and fifteen day all-expense trips are also available. Special programs of entertainment are provided. Large dance floors. enclosed and tiled swimming pools, movies, wide sports decks, an excellent cuisine, and gymnasiums are a few of the special features that contribute to the pleasure of the cruise. Every stateroom, even at minimum rates, is equipped with a private bath.

For those of us who have to stay within a few hours' ride home, the Atlantic City and Lakewood, N. J., hotels are offering specials for the holiday. At Atlantic City, elaborate prepara-

tions are being made by the hotels and amusement centers especially for Washington's Birthday. The outstanding feature of that weekend will be the annual ice carnival to be held at the Convention Hall on Saturday evening, and which is under the direction of the Philadelphia Figure Skating Club and sponsored by the Morris Guards, Atlantic City's

civilian-military organization. A Scandinavian

setting will be the predominating note throughout the pageant with the participants costumed

in brilliant native attire characteristic of the

"Land of the Midnight Sun."

A Record Exodus to Florida

When the familiar cry of the Stationmaster "All Aboard" rang through the Pennsylvania Station at 2:05 P. M. on January 31st, an unprecedented crowd of Florida-bound travelers surged forward looking for their transportation -the first step toward a place in the Sun.

Five sections of the "Florida Special" of the Atlantic Coast Line were required to handle the heavy Florida traffic on that day.

This establishes a record for train travel to a given resort section, as, according to R. S. Voigt, General Eastern Passenger

(Continued on page xxxiv)



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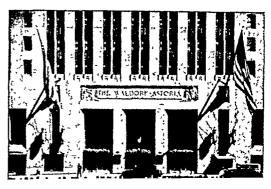
Agent, within four days not less than sixteen heavy sections of the "Florida Special" were required for the run to Miami.

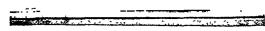
The popularity of this train is accredited in a large measure to the Recreation Car, with music, dancing, bridge, etc., all supervised by a charming hostess, who makes the 27¾ hour trip from New York to Miami a most enjoyable one.

Your 1936 Convention Headquarters

As this year's Annual Convention of the Medical Society of the State of New York promises to be not only the largest in this Society's history, but no doubt the biggest gathering of physicians and surgeons here in the East this year, points of interest about the official headquarters and the great city in which the convention is to be held will be of interest to every member.

The site of the Waldorf-Astoria, still a new hotel to many of us who haven't been a guest there since it was located where the





Empire State Building now stands, is an ideal location for it is practically in the center of things.

Three minutes away (counting in a measure of time) is the Grand Central Terminal, the door to the entire state, while the Pennsylvania's terminal through which many of our guests will come, is only fifteen minutes away. The Waldorf-Astoria is also convenient to shopping districts and amusement centers. It is next door to Fifth Avenue, and a stone's throw from Rockefeller Center, New York City's newest and most interesting attraction. Eight minutes takes you to Times Square and the Great White Way with its hundreds of theatres and night clubs. Fifteen minutes take you to downtown Manhattan, the financial district, Bowling Green and the Battery, and a thousand and one things that compose an invitation to spend extra days in the city.

The Waldorf is a great center of New York life, not just because of its convenient location, but also because of its distinguished functions. Throughout the entire year it presents an ever-varied, always exciting picture of metropolitan life. In the Summer, New York dines and dances on the Starlight Roof. During the Fall and Winter months, the Empire Room is the gay world's favorite rendezvous for dancing and entertainment. The Grand Ballroom is the gracious background for different forms of entertaining; perhaps one day a huge business gathering, and the same night it is quickly transformed into fabulously lovely setting for a ball or great banquet. Concerts, musicales, fashion shows, teas, group meetings, and lectures are staged in the charming smaller entertainment suites. And in the delightful restaurants and bars, fine food is enjoyed while such artists as Henry King, Raul and Eva Reyes, Xavier Cugat, Georges and Jalna, Horacio Zito, the Lombardo Brothers, Veloz and Yolanda, and other famous musicians and stars entertain

At the convention, the Grand Ballroom is to be the scene of the General Scientific Sessions, Business Sessions, and the great banquet that ends the three days of activity. The Basildon Room, Jade Room, Astor Gallery, East and West Foyers, will house upward of one hundred and forty technical exhibitions which this year will lend tremendous interest in many new things in products and services. Scientific exhibits will have equally distinctive quarters and many interesting displays are being arranged.

All in all, everything points to some very excellent work on the part of the committees responsible for the success of the convention in the selection of the headquarters with its ample room for a meeting of thousands, and for all the arrangements being made.

Clinical Surgeons to Tour Europe

An interesting item gleaned from Travel Trade announces that the Southern Society of Clinical Surgeons will make a tour of Europe this summer in celebration of its tenth anniversary, with Thos. Cook & Son—Wagons-Lits Inc. who will be in charge of all arrangements for land travel in Europe.

The group will sail from New York in the St. Louis on June 6th for Galway, Ireland, where the tour will start. Ireland, England, Scotland, Norway, Sweden and Denmark will be visited and during the trip, clinics are being arranged in Dublin, Liverpool, Edinburgh,

(Continued on page xxxvi)



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Travel Bill in Congress Will Stimulate More Domestic Travel

Glenwood J. Sherrard, Chairman of Travel Committee, American Hotel Association, writes: "After having spent a great deal of time during 1935 in helping the passage of the so-called Travel Bill through the tortuous halls of Congress, it would be strange indeed if I were anything but hopeful of the future outlook for travel.

"The committees from both the Senate and the House of Representatives were very much interested in the facts we presented in an effort to show the U. S. Government why it should establish an official Travel Propaganda Bureau of some sort, and appropriate funds to stimulate the tourist movement both to and within our borders. The bill has already passed the Senate, and will come up in the House at the present session. We are quite confident that it will receive the final seal of approval.

"As a hotelman, I naturally look forward to the inevitable benefits which will accrue to my industry, but the fact remains that an increase in travel will help our entire economic life. Railroads, hotels, steamship lines, retail merchants and manufacturers—and yes, even travel agents, will gain. For travel agents, in fact, a government-sponsored 'See America First' campaign may be the means of attaining the long sought-for reaproachment with the railroads, because such a development will give agents an opportunity to prove conclusively that they are creators of travel, and that they are entitled to commissions.

"So here's to the Travel Bill—soon may it pass!"

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Now you can rent a home when you buy your ticket at many of the British Railway Stations.

(Continued on page xxxviii)

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"A special Cruise Train for the Boy Scouts, in addition to the regular Cruise Trains and Land Cruises, was another of the Summer's innovations."

Red Cross Vessel Launched for Newfoundland Service

Red Cross Line's second vessel, the Fort Townshend, specially constructed for the New York-Newfoundland trade, has been launched at the yards of the Blythewood Shipbuilding Company, on the Clyde, according to advices received at the New York offices of Furness Withy & Company, Ltd., operators of this and numerous other services. The flagship of the fleet, the Fort Amherst, was launched last October and is expected to enter service from Halifax shortly. Both vessels are expected to enter New York-Newfoundland trade furnishing regular passenger and cruise service between these two points.

Accommodations are provided in each of the two ships for eighty-five first class and twentyeight second class passengers, with all modern conveniences for comfort and safety at sea. A number of spacious public rooms are also provided.

A feature of the new vessels is the large amount of refrigerated space provided for the handling of fruits, berries, vegetables and chilled meats. Both the Fort Amherst and the Fort Townshend are fully equipped with every known aid to navigation and it is expected that they will be the most efficiently operated vessels of their size. They are 310 feet long, with a forty-five foot beam, and will maintain an average speed of fourteen knots under normal conditions.

Travel Brevities

In Austria—through the generosity of an American, Mr. Irving Mayer, a new heart clinic has been opened in Vienna. Dr. Richard Singer will be chief-of-staff.

The International Dental Congress will take place in Vienna from August 2 to 8. A large delegation from the United States will be

present at the Congress for which an elaborate program supplemented by extensive entertainment for the delegates and their families has been arranged.

Between May 28 and June 2nd, the International Congress of Catholic Physicians will meet here. Among other pertinent topics slated for discussion are eugenics and sterilization.

THE HONORABLE THOMAS D. TAGGART, Recorder of Atlantic City, is using a very novel procedure in dealing with local speeders by having "Skull and Crossbones" stickers placed on the windshields of the cars of those found guilty. This "branding" will doubtless be an effective reminder of the consequence of "loose" driving both to the offender and the general public.

Doctors stopping at the Hotel Langton in Bermuda are, Alfred Narrath and Heroge Hirschfield of New York City, and their wives.

CIRCLE TOURS OF FLORIDA start any day up to April 15th. These tours cover eight days through the sunny state of Florida by rail and bus, and one feature is the assurance of hotel accommodations at fixed rates. American Express Travel Service renders this unique travel aid.

Bermuda, according to steamship passenger lists, continues to receive many doctors and their families. Recent sailings on ships of the Furness Bermuda Line had Dr. and Mrs. D. B. Thorpe of Boston and others aboard.

ABOARD the Northern Prince of the Furness Prince Line, arriving at New York, was the prominent Brazilian, Dr. Antonio Alvaro Assumpçao.

THE BELMONT MANOR and Country Club of Bermuda announced the arrival of the following doctors during January: Dr. R. H. Breslin of Providence; Dr. James A. Dumas of Lynn, Mass.; Dr. Oscar C. Frundt of Jersey City; Dr. F. G. Jensen of Wisconsin; and Dr. Robert H. Veitch of Medford. Mass.

AT THE HOTEL HAMILTON in Bermuda, the following doctors were guests: Dr. and Mrs G. E. Snider of Yonkers; Dr. and Mrs. Henry Sangee of Philadelphia; and Dr. E. A. Y. Schellenger of New Jersey.

ELBOW BEACH Hotel at Paget, Bermuda, numbered among their guests Dr. and Mrs. Victor Baer, Dr. and Mrs. L. Rotheld, and Dr. and Mrs. Jos. Sommer, all of New York State; Dr. and Mrs. H. J. Greene of Cleveland; Dr. and Mrs. L. R. Hess of Ontario, and Dr. and Mrs. Richard M. Rogers of Newark, N. J.

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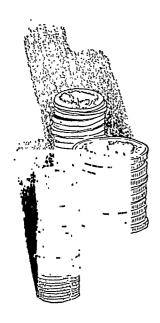
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(Continued on page x1)

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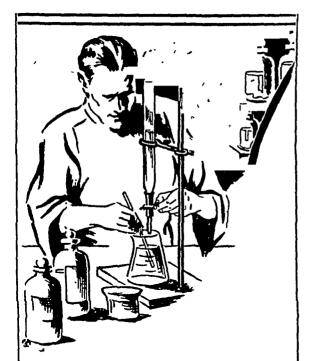
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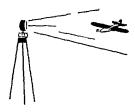
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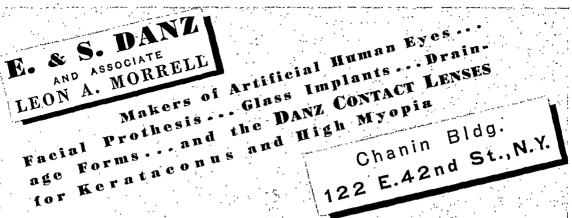
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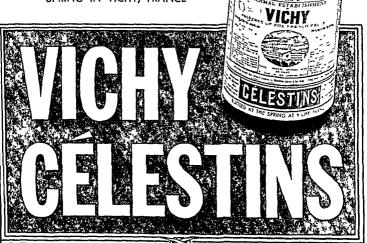
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fidence by the public in the improvement that has been made in both quality and taste of canned goods by canning companies. However there is still a vast difference in grades and brands of preserved foods which demands discriminating selection.

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CANNED FOODS AND THE PUBLIC HEALTH

II. Iron and Tin Salts

• The question is sometimes raised as to whether the metallic salts which canned foods may acquire from contact with tin containers are objectionable from the stand point of public health We are glad to pre sent the facts in answer to this question

The modern "sanitary style" can is man ufactured from 'tin plate' As the name implies tin plate is made by plating or coating thin steel sheets with pure tin This tin coating cannot be made absolutely continuous, under the microscope, minute areas can be noted in which the steel base is exposed

Foods packed in plain or unenameled cans are, therefore, exposed to iron and time surfaces in enameled cans, foods are mainly in contact with inert lacquers baked onto the tin plate at high temperatures. However, because of minute abrasions in the enamel covering, unavoidably introduced during fabrication of the can, foods in enameled cans may also have limited contacts with iron and tin surfaces.

It is common knowledge that canned foods may acquire small amounts of these metals from contact with their containers. The acquisition of iron and tin salts in this manner is an electrochemical phenomenon (1), and the amounts of these metallic salts thus acquired will depend, among other factors, upon the character of the food In general, the acid foods tend to take

up more of these metals, especially when air is admitted after the can is opened However, the quantities of tin or iron present in canned foods, as a result of reaction with the container, are small, the analytical chemist reports these amounts in 'parts per million'

As far as iron is concerned, it is commonly accepted that the amounts of this element—recognized as essential in human nutrition—which may be present in canned foods, are innocuous

As to the tin salts which may be present in canned foods, the Department of Agri culture has authorized the following state ment as the result of its own investigation

"Our own experimental work, involving the ingestion of far larger amounts of tin than any previously reported, and supported by the experimental evidence of other investigators, leads us to the conclusion that tin, in the amounts ordinarily found in canned foods and in the quantity which would be ingested in the ordinary individual diet, is for all practical purposes, eliminated and is not productive of harmful effects to the consumer of canned foods" (2)

It may therefore be stated that the amounts of tin and iron salts normally present in commercially canned foods are without significance as far as possible haz ard to consumer health is concerned

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) Kohmun and Sanborn, Ind Eng Chem 20 76 1373

(2) Food Borne Infections and Intoxications F W Tan ner Twin City Pub Co Champa gn 1 1 1935 p 90

This is the tenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached We want to make this series valuable to you, and so we ask your help Will you tell us on a post earl addressed to the American Can Company, New York, N.Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles



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TREATMENT OF CANCER PATIENTS

Study of End Results in 351 Autopsied Cases

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Director Division of Cancer and Director of New York City Cancer Institute,
Department of Hospitals, New York City

At the Cancer Hospital of the New York City Cancer Institute, which constitutes a large important unit of the Division of Cancer of the Department of Hospitals of New York City, we have had the unique opportunity, during the past five years, of caring for and observing several thousand cancer cases (4705), many of whom before coming to us had been treated by almost every method of surgery and irradiation.

A careful study of a large number of these cases including those upon whom autopsies were secured provides an excellent source of information regarding the diagnosis, results of treatment, course of the disease and end results which cannot but lead to a more comprehensive understanding of cancer, help to indicate what errors in diagnosis and therapy are to be avoided, and help to explain some of the untoward conditions occasionally occurring in such cases. The majority of these cases, because of the advanced stage of the disease, survived only a short time after admission to the Cancer Hospital so that intensive treatment of any kind was, of course, out of the question. In 1933 we reported on our study of over 1,000 unselected cases treated at the Cancer Hospital describing the type of cases received

This present study of a group of autopsied cases has served to disclose the fallacy of some widely-held notions regarding modes of extension of the disease, and has clearly demonstrated the lack of uniformity in metastatic invasion.

This paper gives a detailed analysis of statistics obtained from the 351 autopsied cases at the New York City Cancer Hospital during the period 1929–1934. Of these 279 were white patients and seventy-two colored, this being the proportion expected, as colored patients are about one-third the number of the whites in the city population.

Association of syphilis with cancer was rarely noted. Positive findings of this occurred only in forty-two cases. In dealing with cancer we have learned, by experience, that there are certain groups of common occurrences associated with various types of primary malignant lesions, but this autopsy study has shown us that cancer is entirely irregular in its actions and may involve any and all tissues in a most unusual manner.

Not unexpectedly the errors in technic whether of surgery or irradiation, were soon disclosed at autopsy. In many instances it was evident that by simple surgical or medical methods there might have been favorably effected relief of conditions occasioned by mechanical or functional interference with normal physiological body conditions.

During the period 1929-1934 when the Cancer Hospital constituted an integral part of the Cancer Division of the Department of Hospitals, 4705 patients were accepted for care and treatment. These

^{*}Kaplan, Ira I.: Radiology, Volume 20, June 1933.

patients were received in all stages of the cancerous process, regardless of treatment previously administered elsewhere. Many of these cases were in such an advanced stage of the disease when admitted, that it was only possible in most instances, to mitigate the misery of their passing away. During the period under study 2564 cases passed away at the Cancer Hospital. Mostly these patients were placed on custodial care, which means that symptomatic medical and surgical treatment was needed as the exigencies of the case required: i.e., sedatives for pain, hyperdermoclysis and intravenous injections for nourishment, emergency tracheotomies, gastrostomies or colostomies, transfusions, and hygienic measures depending upon the area affected.

During the years comprising this period, many new so-called "advanced methods"

TABLE I

Skin Neck Mouth Pharynx Tonsil Larynx Tongue Antrum Thymic tumor Lungs Bone Esophagus Stomach Pancreas Soft tissue sarcoma	13 1 10 5 5 9 12 3 4 10 6 20 39 8 3	Primary unknown Nonmalignant Liver Gall bladder Rectum Breast Vulva Cervix Uterus Ovary Kidney Bladder Prostate Testicle Leukemia	5 7 8 3 3 3 3 9 4 3 6 18 3 8 2 2 1
			3 2 3

or irradiation therapy were being employed in various cancer centers throughout the city and a large number of patients, so treated were sent to us following adverse reactions or for custodial care because they failed to respond to the treatment administered.

Due to legal restrictions we were not permitted to autopsy all of the patients who died while in our care. We were, however, in a favorable position to evaluate the results of all types of therapeutic measures in current use by observing the end results in patients cared for at the Cancer Hospital or elsewhere and ascertaining at autopsy the true state of affairs with regard to the malignant lesions in many of those who died.

In the autopsied group under discussion, the cases presented malignancies as can be seen in Table I.

Final Causes of Death

In all groups except the cervix, pneumonia was most frequently the cause of death, accounting for 150. (Table II.) In ninety-eight instances inanition (cachexia) was the distinguishing cause and especially was this the case in stomach cancer, where in twenty-one instances death could be definitely ascribed to this cause.

In carcinoma of the cervix we found inanition or cachexia the most common cause of death, fifteen cases; pneumonia

TABLE II. PRINCIPAL CAUSES OF DEATH

	Cachexia Inanition Toxemia	Pneumonia	Peritonitis	Uremia Nephritis	Hemorrhage		All Other Conditions
Skin	2	10				1	
Iouth	3	6				1	
Antrum	1	2					
Congue		9			1	1	
Consil	2	2			1		
Pharynx	3	2					
arynx		6			3		
Sophagus	5	13	2				
Stomach	21	15	2		1		
Liver	2	2			1		
vall bladder		1	1				
Rectum	16	13	3				1
Breast	• 7	17	2	1		12	
Thymic		4					
ung	3	4				1	1
Yulva	3	1					
Cervix	15	11	5	5			
Uterus	2	2	2				
Ovary	9	3	4			3	
Bladder		4	1	3			
Prostate		13		7		1	
Leukemia	2	1					
modgkin's		2					1
Lymphosa		2					-
Bone	1	3					2
Soft tissue sa	1	2					
Total	98	150	22	16	7	20	

was the principal cause in eleven instances, and nephritis and uremia present in only five cases

In the rectal group, cachexia, twelve, and pneumonia thirteen, were the main causes of death.

Skin Cases Autopsy in thirteen cases of skin malignancy disclosed the error of con sidering this type of lesion innocuous these cases were over forty years of age The face was involved in ten instances, in eight cases the lesion was basal cell, in one case rhabdomyoma, in four cases squamous cell, while bone destruction was evident in two cases Experience showed that in most instances skin malignancy, when not radically and intensively treated, becomes markedly destructive in character and uncontrolled by any means at our com-mand Early surgical removal of rodent ulcers might have prevented extensive tissue destruction

Radium and x-ray therapy were of little avail in six of these cases, the malignancy proceeding despite treatment. Toxic pneumonit was the cause of death in most in-

stances (Table III)

Color White 13

Age Oldest 82 Youngest 50

Sex Male 12, Temale 1

B'assermann 4 plus 4

In a study of ten cases of mouth malignancy which came to autopsy, all were in an advanced stage of the disease, and although syphilis is supposed to be a con comitant factor in this type of malignancy, in no instance was lifes found in these ten cases The floor of the mouth was most commonly involved, the palate and cheek only in one instance each In only one case was the patient free from metastatic neck

TABLE III EPITHELIOMA SKIN

Age average 50 3 51 to 60, 2, 61 to 70, 1, 71 to 80, 5 82, 1, Unknown 1

Marital state Married 7, Single 5, Unknown 1 Birthplace U S A 4, Foreign 9

Religion Catholic 9, Protestant 2, Unknown 2

Location Tace 10, Shoulder 1, Neck 1, Nose 1

Biofsy Basal 8, Squamous 4, Malignant Rhabdomy oma 1 X ray diagnosis Bone destruction 2 Previous treatment 1 case had eye enucleated plus radium 3 years ago 7 realment at Cancer Hospital Custodial 7 Radium 5 \ ray 1, Endothermy and Radium 1

Duration of disease 1 to 2 years 5, 2 to 4 years 2, 10 years 2 25 years 1 Not stated 3 Duration of life after admittance to Cancer Hospital 1 month 3, 6 months 5, 1 year 4, 2 years 1

Cause of death Pneumonia 9 Active military the 1 Inamition 2, Heart failure 1 Autoby findings No distant metastases, 1 case of invaded orbit from face

History of trauma Cutting wart when shaving 1 Splint from wood 1

In two instances bilateral node innodes volvement was present and in five cases there was bone involvement In only three instances was active treatment possible and while the local lesion was healed by radium therapy the metastatic development was not hindered in its destructive growth Fifty per cent of these cases lived more than a year, which indicates the slow growth of this type of disease (Table IV)

Our study of twelve tongue cases in this series disclosed that this type of disease is infrequent in the colored rice In only one instance was a negro involved, neck nodes were present in all instances and the Wassermann positive in five The whole tongue was involved in two, and extension

TABLE IV MOUTH

Color White 9 Colored 1 (Ml Males)

Marital State Married 4 Single 5 Unknown I Birthplace U S A 4 Foreign S Unknown 1
Religion Catholic 4 Protestant 4, Unknown 2 Age Oldest 74 Youngest 50 Age Axerage A1 to 50 1 51 to (0, 2, 61 to 70 5 71 to 74 1, Unknown 1 Symptoms Pain 7 Earache 1 Lump in neck 1 (All cases with pain also had ma s) Pite Smokers 2 Bad Teeth 2 Local Condition Intolecal Floor of Mouth 6 Lower Alveolar Ridge 3, Palate (hard & soft) 1 Diagnosis Correct in 9 cases 1 case called Sa of Mandible Wassermann All negative History of Lues 1 Biopsy All Squamous Cell Complications Bone Destruction 5 cases. Nodes Same side 7 Bilateral 2 None 1 Treatment at Cancer Hospital Custodial 5, X ray 2, Radium and x ray 3 Duration of life after admittance to Cancer Hospital Less than 1 year 5 1 to 2 years 5 Cause of death Pneumonia 6 Cardiac 1, Inantion 3

TARLE V TONGUE

Autors, findings No distant metastases

Color White 11 Colored 1 (All Male)

Marstal state Married 5, Sirgle 4, Unknown 3 Birthplace U S A 3 Foreign 7, Unknown 2 Religion Catholic 4 Protestant 7, Unknown 1 Age Oldest 74 Youngest 49 Age Aterage 41 to 50, 2, 51 to 60 2, 61 to 70, 6 71 to 74, 2 Symptoms Sore tongue 10 Lump in tongue 1, Neck node 5, evidences of bad teeth 2 Local condition intolved Ventral surface 1, Lateral margin 7, Extension onto floor 5 Post tongue 2, Entire tongue 2

Metastatic nodes Same side as lesion 9, Bilateral 1 Submental 3

Wassermann Positive 5, Negative 7

Bone changes Destructive changes in mandible 3 Treatment at Cancer Hospital \ ray 3 \ \ \ ray and radium 5 \ Custodial 5 \ Resection of mandible 1 Duration of life after admittance to Cancer Hespital
Less than 1 month 2, 1 to 3 months 6, 3 to 6
months 1 6 to 12 months 1, 1 year 2

Cause of death Pneumonia 9, Hemorrhage 1 Heart failure 1, Undetermined 1

Metastases to Heart 1, Pericardium 1

TABLE VI. PHARYNX

Color: White 4; Colored 1. Marital state: Married 2; Single 2; Unknown 1. Birthplace: U. S. A. 4; Foreign 1. Religion: Protestant 4; Unknown 1. Age: Oldest 66; Youngest 17. Age average: 17 years 1; 51 to 60, 3; 61 to 70, 6. Sex: Male 4; Female 1. Symptoms: Bloody sputum 1; Sore throat 2; Dysphagia 2. Diagnosis: Correct in all cases. Biopsy: Epithelioma 4; Lymphosarcoma of nasopharynx Extension: Node involvment, Both sides 1; Same side 1. Bone Destruction: None. Treatment at Cancer Hospital: X-ray and radium 1; X-ray 2; Custodial 2. Duration of life after admittance to Cancer Hospital: Less than 1 year 2; 1 to 2 years 1; 2 years (Sarcoma) 1; (1 case of Ca. of Uvula lived 3 yrs.)

TABLE VII. LARYNX

Cause of death: Pneumonia 2; Inanition 3.

Color: White 9; Colored 0. (All Male)

Marital state: Married 8; Single 1. Birthplace: U. S. A. 3; Foreign 6. Religion: Catholic 5; Protestant 2; Unlisted 2. Age: Oldest 65; Youngest 37. Age average: 30 to 40, 1; 41 to 50, 3; 51 to 60, 2; 61 to 65, 3.

Symptoms: Hoarseness 5; Sore throat 2; Dysphagia 3; Dyspnea 3. Local condition involved: Intrinsic 3; Extrinsic 3; Not visualized 2; Epiglottis 1. Biopsy: Squamous cell 7; Plexiform 1; Carcinoma 1. Extension: Gland metastases all 9 cases. Treatment at Cancer Hospital: Tracheotomy 7; X-ray 5; Gastrostomy 2; Custodial 1. Duration of life after admittance to Cancer Hospital: Less than 1 month 2; 1 to 3 months 1; 3 to 6 months 4; 6 to 12 months 2.

Cause of death: Hemorrhage 3; Pneumonia 6; Autopsy findings: Fistulae into esophagus 3. TABLE VIII. TONSIL Color: White 5; Colored 0. (All Male) Marital state: Married 5; Single 0. Birthplace: U. S. A. 1; Foreign 4.
Religion: Catholic 2; Protestant 2; Unknown 1. Age: Oldest 68; Youngest 55. Age average: 55 to 60, 3; 61 to 68, 2. Symptoms: Pain in leg and hip 1; Pain on swallowing 3; Mass in neck 1. Physical Examination: Nodes: Same side 3; Other side 1; Left chest wall metastases 1. Clinical Diagnosis: Correct 4; Error 1; (Wrong one called Lympho. Sa. of Tonsil.) X-ray Diagnosis: 1 Case showed metastases to ribs, femora and pelvis. Previous Treatment: Resection 1; Not stated 1. Biopsy: Squamous cell 3; Negative for malignancy 1. Treatment at Cancer Hospital: Custodial 4; X-ray and radium 1. Duration of life after admittance to Cancer Hospital: Less than 1 year 5. Cause of death: Hemorrhage 1; Pneumonia 2; Cachexia 2. Autopsy findings: Endocarditis 1; Regional metastases 4; Lung metastases (nodes) 2; Liver 1; Spleen 1; 4; Lung metastase Pelvis and ribs 1.

TABLE IX. ANTRUM

Color: White 3; Colored 0. Marital state: Married 2; Single 1. Birthplace: U. S. A. 2; Foreign 1. Age: Oldest 65; Youngest 39. Age average: 30 to 40, 1; 41 to 50, 1; 61 to 65, 1. Sex: Male 2; Female 1. Symptoms: Pain 1; Discharge 1; Obstruction 1. Bone Destruction: Orbital rim 2; Ethmoid 1; Floor of antrum 1. Nodes: 1 Case-Angle of Jaw. Previous operations on antra: All cases Treatment at Cancer Hospital: X-ray 2; Radium 2. Duration of life after admittance to Cancer Hospital: 1 year 2; 2 years 1. Cause of death: Pneumonia 2. Autopsy findings: Metastases to: Lung 1; Liver 1. TABLE X. TUMORS OF THYMUS Autopsy findings: Lungs 2; Kidney 1; Liver 1; Parotid nodes 1; Pneumonia 2; (the case of lymphosarcoma metastasized to the brain.) Color: White 4; Colored 0. (All Male) Marital state: Married 3; Single 1. Birthplace: U. S. A. 2; Foreign 2. Religion: Catholic 1; Protestant 3. Age: 36, 1; 45, 1; 53, 1; 70, 1. Symptoms: Cough 1: Dysphagia 1; Hoarseness 1: Edema of face 1; Pain in chest 1. Physical examination: Increased mediastinal duliness 2; Left side supraclavicular node 2; Bilateral supra-clavicular node 1; Venous dilatation 2. Clinical diagnosis: Correct 1 (Biopsy); Error 3; (a. Ca. thymus called lymphona; b. Thymic tumor called ca. of esophagus; c. Epithelioma of thymus called ca. lung). X-ray examination: 3 cases showed mediastinal involvement suggesting lymphoma. Previous treatment: Previous x-ray therapy 1 case. Biopsy: (1 made) Reticulum Cell Sa. Treatment at Cancer Hospital: Gastrostomy 1; H. V. x-rav 2. Duration of life after admittance to Cancer Hospital: Less than 1 year 3; 1 year 1. Cause of death: Pneumonia 4.

Autopsy findings: Ca. of thymus 2; Thymoma—probably reticulum cell 1; Thymic tumor 1. Mctastascs to: Pericardium and heart 3; Lung 3; Skin 1; Kidney 1; Spleen 1; Retroperitoncal 1; Adrenals 1; Liver 1. TABLE XI. LUNGS Color: White 10. (All Male) Marital state: Married 5; Single 4; Unknown 1. Birthplace: U. S. A. 1; Foreign 8. Religion: Catholic 3; Protestant 2; Unlisted 5. Age: Oldest 64; Youngest 36. Age average: 30 to 40, 2; 41 to 50, 2; 51 to 60, 3; 61 to 64, 2; Unknown 1. Symptoms: Cough 6; Pain in chest 4; Hemoptysis 2; Dyspnea 2; Pain in shoulders 1; Tumor neck 2. Local condition involved: Right 5; Left 5. Clinical diagnosis: Correct in 8 cases; Incorrect 2 cases (Lympho. Sa., and Epithelioma of skin. Nodes: Supraclavicular 2.

Treatment at Cancer Hospital: Custodial 6; X-ray 3; Seeds to neck node 1; (In 4-year case.) Duration of life after admittance to Cancer Hospital: One to 3 months 4: 3 to 6 months 2: 6 to 12 months 2: 2 years 1 (at C. C. I.); (Entire duration 4 years, 1.)

Cause of death: Pneumonia 4; Heart failure 1; Lung necrosis 2; Inanition 3.

Site of Lesion: Bronchus 8; Lung 2.

Autopsy findings: Metastases to: Other lung 5; Heart 1; Adrenals 3; Liver 2; Kidney 1; Bone 1; Retroperitoneal nodes 1.

to the floor of the mouth appeared in five Active treatment with x-ray and radium was attempted in five cases with but little result. The endotherm was employed in one case to remove necrotic malignant tissue and involved bone Dissection of neck nodes was not performed in any case, these being treated by intensive x-ray therapy, except in one case where a radium pack for 5500 milligram hours was ad ministered to both sides of the neck our opinion extensive malignancy of the tongue with associated infection mitigates against successful control of the condition by irradiation In eight cases death occurred in less than three months cases lived a year after irradiation treatment and mouth hygiene (Table V)

Plarynx The pharynx was the seat of primary mulignancy in five cases, in four cases the lesion was epithelionin, in one lymphosarcoma. One case treated by x ray therapy lived two years under treatment and in one case where the uvula was involved, x-ray and radium prolonged life for three years. Irradiation therapy given in time is a treatment of real worth in this type of malignancy. (Table VI)

Larynx The nine cases of larynx carci noma included three extrinsic, three intrinsic types, one primary involvement of the epi glottis and in two cases the original lesion could not be visualized. All cases had neck node involvement and the Wassermann was negative in every case Tracheotomy was imperative in seven cases and in two gas trostomy had to be performed in order that the patient be nourished. Intensive a ray therapy was employed in five cases, but in no instance was the lesion inhibited. Listulae into the esophagus occurred in three cases, due to malignant extension observations lead us to believe that x ray therapy to be of value must be applied early in the disease. Advanced laryngeal malignancy cannot be controlled even by intensive irradiation (Table VII)

Tonsil It is interesting to note that all five cases of tonsillar malignancy occurred in persons over fifty-five years of age and all were white males In four cases neck nodes were noticeable. In only one case was active irradiation therapy attempted At autopsy, metristasis was found in the lungs in two cases the spleen in one, and the skeleton in one. (Table VIII)

Antrum A study of the three antrum cases proved that these are quite rapidly fatal, following surgical treatment alone To be effective, treatment of this condition must be ridical and a combination of surgery and irradiation. Bone invasion and destruction are common in this type tumor

A review of the cases in the oral groups disclosed the fact that syphilis was a dominant finding only in longue cases where it constituted an incidence of forty one percent. It was noted too that distant metases were associated with tongue, pharying, and tonsit malignancy, whereas the mouth and larying produced only local metastatic manifestations. (Table IX.)

Thymic There were four cases of thymic tumors and all were in patients over thirtyfive years of age. In only one instance was the clinical diagnosis correct and this was based on biopsy finding of a neck node. In the other three cases the diagnosis was made of lymphosarcoma carcinoma of the esoplingus, and carcinoma of lung one case, because of difficulty in swillowing and the diagnosis of esophageal cancer, a Irradiation gastrostomy was performed was employed in all cases but only tem porary response by the tumor followed in our opinion permanent destruction of the tumor by irradiation is not possible In three cases autopsy revealed early and extensive invasion of the pericardium and lungs, another factor precluding successful control by irradiation (Table X)

Lung There were ten cases of lung malignancy and as to be expected all were males, and in only eight cases was the clinical diagnosis correct before death five cases the tumor involved the right side and in two cases supraclavicular nodes were palpable Pain and coughing were the most prominent symptoms displayed by the patients. In eight instances the autopsies revealed the site of the malignant lesson to be in the bronchus X ray therapy was ad ministered in three instances, but with little In most instances custodial care was all that could be given Bone metas tases was found only in one case In five cases the opposite lung was the sent of the metastases the liver was involved in two instances, the kidney was invaded in only one, and the adrenals were involved in three cases One case particula ly was of interest having lived four years-two at the Cancer Hospital under custodial care only (Table XI)

Bone Bone tumors were little effected by irradiation treatment and death in most in stances from associated pneumonia followed In our opinion early radical surgery is the treatment of choice whenever it is possible of performance (Table XII)

Esophagus There were twenty cases of esophagus cancer autopsied A most striking observation was that practically all of these patients were extremely emaciated their skin parchment like—extremely dry, and stretched over the skeleton in such a

manner as to reveal its whole structure. Fourteen of these cases died in less than two months after admission. gastrostomy was necessary in seven cases with fatal results in all within a few days Autopsy indicated that of the operation. in most cases the malignancy had existed for a long time and that delay in seeking early relief was the cause of the rapidly hastening fatal outcome after the patients reached the hospital. In advanced cases irradiation is of little avail in inhibiting the

TABLE XII. BONE

Color: White 4: Colored 2. Marital state: Married 4; Single 2. Birthplace: U. S. A. 1; Foreign 5. Religion: Catholic 4: Protestant 2. Age: Oldest 61; Youngest 40.

Age average: 30 to 40, 1; 41 to 50, 1; 51 to 60, 4. Sex: Male 5; Female 1.

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Symptoms: Pain 5; Swelling 1. Local condition involved: Fibro. Sa. foot 1; Osteogenic right ileum, left arm 2; Multiple Myeloma, all skeleton 2.

Clinical diagnosis: Correct 4; Incorrect 2; (1 called Pagets, 1 called malignant and had no malignancy.)

X-ray diagnosis: Correct 3; incorrect 3 (1 Myeloma called metastasis, 1 Osteogenic called Pagets, 1 Osteogenic called Sa, of soft tissues.)

Wassermann: Positive (1-plus) 1; Negative 5.

Trauma history: In 1 case of multiple myeloma. Type tumor: Osteogenic 2; Periosteal fibro ... Sa. 1;

Multiple myeloma 2.

Biopsy: (3 taken) 1 case showed no malignancy and was correct; 1 case changed Pagets to osteogenic; 1 showed metastatic Ca, Treatment at Cancer Hospital: Custodial 2; X-ray 2; Radium 1; Amputation 1.

Cause of death: Pneumonia 3; Shock from Salvarsan 1; Inanition 1; Infection 1.

Autopsy: Plasma cell myeloma 2; Osteogenic 2; Fibro. Sa 1; (1 case diagnosed as sa. of humerus showed thick cortex, but no malignancy. He showed the of 5th. lumbar spine—iliopsoas abscess—pulmonary the.)

TABLE XIII. ESOPHAGUS

Color: White 16: Colored 4.

Marital state: Married 13; Single 6; Not stated 1. Birthplace: U. S. A. 7; Foreign 13.

Age: Oldest 72; Youngest 44.

Age average: 44 to 50, 3; 51 to 60, 8; 61 to 72, 9. Sex: Male 18; Female 2 (Both colored)

Symptoms: Difficulty in swallowing 19, Loss of weight

20; Vomiting 1. Clinical diagnosis: Positive 15; Questionable 2; Error 3.

X-ray diagnosis: Positive 18; Negative 2.

Treatment at Cancer Hospital Gastrostomy 7; Irradiation (x-ray) 2; Surgery and irradiation 5; Tracheotomy 1; Custodial care 5.

Duration of life—All cases: Less than 1 month 9; 1 to 2 months 5; 3 to 5 months 6.

Duration of life of 5 untreated cases: Less than 1

Duration of life in 5 combined cases: 1 month 2; 3 months 2; 5 months 1. Cause of death: Inanition 5; Peritonitis 2; Pneumonia

13.

Autopsy findings: Positive 19; Negative 1. (Peptic ulcer)

Metastases: 15; Extension to stomach 3; Mediastinum 4; Perforation in trachea 3; Lung perforation 2.

malignancy and may even hasten death. (Table XIII.)

A study of the thirty-nine Stomach: cases of malignancy of the stomach revealed some interesting facts. portion of white patients was almost twice that of colored; males exceeded females. condition occurred approximately equally in all decades from thirty-three to seventy-nine years of age, but it is surprising to find seven cases between the thirtythree and thirty-eight age group constituting sixteen per cent of all stomach cases. In thirty-five cases the clinical diagnosis was made from the important and constant symptoms of pain and vomiting; in twentyseven the roentgenographic examination was positive, and in three cases the wrong diagnosis was made. Because of the advanced condition that these cases presented, only custodial care could be given In but three instances was irradiation in the form of x-ray therapy attempted, and then only as a palliative. Judging from our observations in these thirty-nine cases, irradiation offers no help in advanced cancer of the stomach conditions nor are surgical procedures of real value except in the very early cases. (Table XIV.)

TABLE XIV. STOMACH

___ Color: White 25: Colored 14. Marital state: Married 31; Single 7; Not stated 1. Birthplace: U. S. A. 19; Foreign 20. Religion: Jewish 3.

Age: Oldest 79; Youngest 33.

Age Average: 33 to 38, 7; 41 to 49, 9; 50 to 57, 7; 60 to 69, 9; 70 to 79, 7.

Sex: Male White 19; Colored 8. Female White 6; Colored 6.

Symptoms: Epigastric pain, vomiting, slight vomiting. Clinical diagnosis: Positive 35; Error 4 (1 ca.e Ca.

Prostate). X-ray diagnosis: Positive 27; Negative 9; Error 3.

Wassermann: Negative 35; positive 4. Anatomical position of lesion: Pyloris 25; Cardia 4;

Body 1. Previous surgical treatment: 9 cases (Gastrectomy 1; Gastroenterostomy 4; Jejunostomy 2; Gastrostomy 2.)

Treatment at Cancer Hospital: Surgery Jejunostomy 1; Irradiation X-ray 3; Custedial 35.

Duration of life-All cases: Less than 1 month 17; 1 to 3 months 19; 6 months to 1 year 2; Over 1 year 1.

Duration of life—Untreated cases: 25 Cases (Less than 1 month 11; 1 to 3 months 12; 3 months to 1 year 2.)

Cause of death: Inanition 21; Peritonitis 2; Pneu nonia 15; Hemorrhage 1; Autopsy: Positive 39.

Pathology of lesions found: Adeno Ca. 33; Small cell 1; Gelatinous ca. 2; Krukenberg 1; Sarcoma 1; Ca. 1.

Metastasci: Generalized 1: (Breast, Liver, Omentum, Nodes : Lung 2; Pleura 1; Ovary ; Diaphragm 1; Skin 1; Spleen 1; Inguinal Nodes 1; Krukenberg 1; Case double primary ca. stomach with sa. abdominal tumor 1.

Liver Because of infrequent occurrence, positive diagnosis in primary liver miliginancies is seldom correctly mide before operations. In our series of eight cases considered miliginant only three had the diagnosis confirmed by operation, and autopsyproved only four to be miliginant. X-ray diagnosis was shown completely in error three mistances. The two cases that hied over one year corroborated again the customary assumption that patients remaining long alive without radical treatment are probably not malignant even though exhibiting all the seeminely positive clinical signs of milignancy. (Table XV.)

Pancreas In only one of the eight cases of autopsy proven malignancy of the pancreas, was positive diagnosis made before death. All sorts of diagnosis had been made, because the symptoms and clinical signs mostly referred to other organs more commonly affected by malignancy No patient lived beyond three months after admission to the hospital thus showing the rapidity with which this type of lesion progresses In seven cases custodial care only was possible, in two cases, because of the supposition they were Hodgkin's irradiation was Autopsy showed eight cases of attempted this series to be carcinoma of the pancreas. in one case a purulent abscess of the pancreas was found without definite evidence of malignancy (Table XVI)

Gall bladder None of the three cases of gall bladder disease autopsted was correctly diagnosed before death, in each instance carcinoma of the panerers was suggested. Autopsy proved only one case to be cancer of the gall bladder. The other two were benign conditions. The patients

TABLE XV LIVER

Age at erage 26 to 42 3 50 to 55 2, 65 to 71 2 Unknown 1

Symptoms Jaund ce Vomiting Pain, Loss of Strength, Loss of Weight

Color White 8

Marital state Married 7 Single 1 Birthiplace U S A 4 Foreign 4 Age Oldest 71 Youngest 26

Clinical diagnosis Correct 4 Error 4 (Ca I wer 1) (Ca Stomach 2)

ray diagnosis Correct 5 Error 3

l'assermann Positive 1

Treatment at Cancer Haspital Surgery 2 \ ray strat sation 1 Custodial 5

Sex Male 5 Female 3

Duration of life after admittance to Cancer Hospital 1 less than 1 month 3 1 to 3 months 3, Over 1 year 2

Cause of death Malgnancy 2 Pneumonia 2, Benign Inver conditions 3 Hemorrhage 1

Pathology Carcinoma 2, Sarcoma 1, Lymphosarcoma 1 Scirrhus 2 Ciolecystius 1 Choleithiasis I Moley Stosius 4 Malgnancy 4 Benign 4

Metastasis to Adrenals 2, Spiecn Retroperitoneal Nodes Skeleton

all died in less than a month after admission and custodial care was the only treatment given (Table XVII)

A review of the thirty-three Rectum cases of malignancy of the large intestine bears out the accepted fact that this disease occurs most often in the rectum, twenty-four White, married cases being so involved males of the fifth-seventh decades are most often the victims of this disease clinical diagnosis of cancer was readily made in twenty-eight cases, in five the lesion was mistaken for other conditions | Though this type of cancer is pronouncedly slow in growth, twenty cases referred to the Cancer Hospital were already in such an advanced state that only custodial care could be given them Irradiation was employed in twentyfive cases, in five associated with surgery. in four radium alone was used, while in sixteen cases x-ray therapy was employed as a palliative measure, but in no instance

TABLE XVI PANCREAS

Color White 5 Colored 4

Marital state Married 5, Single 4

Brithflace U S A 4, Foreign 5
Age Oldest 76 Youngest 48
Age acrapge 48 to 60, 6 61 to 76 3
Sex Male 7 Female 2 (Both colored)
Sylvitoms Yomnium Pan in aldomen Ioss of
weight Jaundice Difficulty in awallowing 1
Clinical Diagnosis Correct 1, Fror 8 (Ca Stomach
Ca Laver, Hodgkin s)
Any diagnosis Correct 5 Error 4 (Duodenal Ulcer
Pyloric Tumor, Gastrie Ulcer)
Pathiclagical Reports Adeno ea 8 Abscess 1
Pathiclagical Reports Adeno ea 8 Abscess 1
Pathiclagical Reports Adeno ea 8 Abscess 1
Duration of life after admittance to Cancer Hospital
Less than 1 month 5 1 to 3 months 4
Duration of life after treatment 1 to 3 months 2
Cavies of death Peritonitis 3 Pneumonia 3 Cachexia
2 Cardiac 1
Autory Spading: Positive 8 Negative 1 (Purulent
abscess plus liver and neritonitis)
Metastans to Liver 6 Generalized 2, Heart 1 Skin 1
Bone 1 Nodes 1, Pleura 3 Adrenal 1, Diaphragm
1 Rt Breast 2

TABLE XVII GALL BLADDER

Color White 1, Colored 2 Marital state Marriel 2 Single 1 Birthplace U S A 2 Foreign 1 Age 40 1 44 1 76 1 Sex Female 3 Symptoms Vomiting Loss of strength, Loss of weight Pain Jaundice Clinical diagnosis Error 3 (Ca of Pancreas 1). Vray diagnosis Correct 1 Error 1 Negative 1 Hassermann Negative 2, Positive 1 Treatment at the Concer Haspital Custodial 2 Antiluetic 1 Surgery 1, Duration of life after admittance to Cancer Hospital Less than 1 month 3 Cause of death Pneumonia 1, Cachexia 1 Peritonitis Autopsy Findings Positive ca 1 Penign 2 Metastasis Metastasis to pancreas and liver 1

was the progress of the disease arrested. In twelve cases death was directly due to the malignant cachexia and in thirteen cases terminal pneumonia was the cause of death. (Table XVIII.)

Breast: In this group there were thirtyeight cases involving thirty-seven females and one male. Of these, twenty-one females and one male were treated by radical surgery before admittance to the Cancer Hospital. In our study of the cases of breast cancer we find that radical breast surgery alone is not the method offering the best opportunity for curing this condition, for in the thirtyeight cases autopsied, generalized skeletal metastases occurred most frequently in the cases which had been operated upon in that manner: fourteen of the twenty-two cases, treated by radical surgery alone, exhibited bone metastases, while only seven cases of the seventeen not treated by surgery showed this complication. In no instance did these operated cases have postoperative x-ray therapy. In our series only two cases had irradiation with surgery and two cases irradiation alone as the treatment before entering the Cancer Hospital. opinion, based on the study of living cases, preoperative and postoperative x-ray therapy does actually prevent or inhibit bone metastasis. Preoperative x-ray therapy was in no instance employed. In this series the

TABLE XVIII. RECTUM

Marital state: Married 30; Single 3. Birthplace: U. S. A. 13; Foreign 20. Religion: Jewish 1; Gentile 32. Age: Oldest 79; Youngest 31. Age average: 31 to 39, 4; 44 to 49, 3; 50 to 59, 10; 60 to 69, 9; 70 to 79, 7. Sex: Male White 16; Colored 5. Female White 9; Colored 3.

Symptoms: Constipation, pain, bleeding, jaundice, pain in back, hemorrhoids.

Anatomical position of lesion: Rectal 24; Sigmoid 4; Colon 2; Cecum 2; Prostate 1.

Wassermann: Positive 2.

Color: White 25; Colored 8.

Clinical diagnosis: Positive 28; Error 5.

Previous treatment: Operation-Colostomy 9; Irradiation 3; Stomach 2.

X-ray diagnosis: Positive 8; Negative 2; Error 1. Biopsy: Papillary ca. 7; Adeno. ca. 20; Gelatinous ca. 4; Unknown 1; Benign 1; Transverse colon 1.

Treatment at Cancer Hospital: Surgery (Alone) 1; Ileocolostomy 1; Colostomy 6; Proctotomy 2; Fulguration 2: Irradiation, Radium 4; X-rays 16; Surgery and irradiation, 5; Custodial, 20.

Duration of life after treatment: Less than 1 month 11; 1 to 3 months 5; 3 to 5 months 2; 6 months to 1 year 7; Over 1 year 8; (2 years 1); (3 years 1). Cause of death: Malignancy Cachexia 12; Peritonitis 3; Toxemia 4; Pneumonia 13; Meningitis 1; Tbc. 1.

Autopsy: Positive 32; Negative 1; Malignancy 32; Benign 1.

Metastases: Liver 13; Omentum 2; Retroperitoneal nodes 10; Kidney 1; Ovary 1; Diaphragm 2; Lungs 4; Skeleton 1; Supraclavicular nodes 1; Peritoneum 1; Adrenal 1; Pleura 1; Bladder 4; Appendix 1; Prestate 6

most frequent site of bone metastases was in the spinal column with eleven, and ten in the pelvis. A unique finding was metastatic involvement in the spleen in two instances.

Most of the breast cases when admitted to the Cancer Hospital were so far advanced that only custodial care could be given, and in only one case in this series was surgical

TABLE XIX. BREAST

Color: White 29; Colored 10. Marital state: Married 34; Single 5. Birthplace: U. S. A. 18; Foreign 21.

Religion: Gentile 31; Jewish 1; Not stated 7.

Age: Oldest 75; Youngest 20.

Age average: 20 to 30, 2; 31 to 40, 4; 41 to 50, 11; 51 to 60, 8; 61 to 70, 10; 71 to 75, 4.

Sex: Female 38; Male 1.

Children: No Children 5; 1 Child 3; 2 or More 18; Not Recorded 10.

Breast involved: Right 13; Left 24; Both 1.

Symptoms: Lump in breast 21; Pains in skeleton 18; Dyspnea 4; Sternal mass 2; Pleural effusion 7.

Previous treatment: Surgery 22; Post. x-ray and surgery 2; Radiation alone 2.

Recurrence of symptoms after operation: Less than year 5; Within 1 to 3 years 10; Within 4 to 5 years 6; Lived 9 years 1.

Lymph node involvement: Axilla 18; Supraelavicular

X-ray findings: Bone Metastases 21; Lung Metastases 1; Pleural Effusion 9.

Occurrence of bone metastases in: Previously-operated cases 14; Non-operated cases 7.

Biopsy: Tumor Histology, Duct Cell 19; Sarcoma 1; adeno. ca. 3; Scirrhus 1; Undifferentiated 13; Medullary 1; Epidermoid 1.

Wassermann: Positive 3.

Treatment at Cancer Hospital: Custodial 22; Surgery 1 (For Abd. Tumor, Hysterectomy); X-ray 12; X-ray and radium 3; Surgery and irrad. 2. When condition did not allow moving, the radium pack was used.

Situation of bone metastases in x-ray: Pelvis 10; Ribs 6; Spine 3; Femora 9; Humerus 2; Scapulae 2; Vertebrae 8; Sacrum 2; Sternum 1; Clavicle 1; Skull 5; Skeleton 3.

Swollen Arm: 2.

Paralysis Legs; 1.

Duration of life after treatment: Less than 1 month 12; 1 to 6 months 17; 7 months to 1 year 5; Over 1 year 1.

Causes of death: Pneumonia 17; Suffocation (Pleural Effusion) 4; Cachexia 7; Cardiac 4; Pleurisy and pericarditis 4; Peritonitis 2; Cardiorenal 1.

Autopsy findings—Metastases to: Liver 15; Stomach 1; Lung 12; Adrenals 3; Other breast 9; Lymph nodes 17; Skin 6; Kidneys 2; Diaphragm 2; Pancreas 1; Pleura 13; Pericardium 6; Ovary 3; Omentum 2; Spleen 2; Peritoneum 1.

Hemangioma of: Liver 1; Heart 1; Sigmoid 1; Appendix 1.

1 CASE IN MALE

White, Aged 43 years, Married.

Symptoms: Skeletal pains.

Findings: (Physical)—Healed post. op. breast wound—right side. No nodes palpable.

Previous treatment: Radical breast amputation for lump in breast.

Diagnosis: Carcinoma.

X-ray examinations: Showed diffuse skeletal metastasis. Treatment at Cancer Hospital: Custodial.

Cause of death: Inanition cachexia.

Autopsy findings: Diffuse skeletal metastasis and metastasis to liver.

TABLE XX VULLA-VAGINA

Color White 2. Colored 2 Marital state Married 3, Single 1 Birthblace U S A 1, Foreign 3 Religion Protestant 3, Catholic 1

Age average 28 years old 1, 30 to 40 1, 41 to 50, 1, 71 to 75, 1

Children All child bearing (Marital)

Symptoms Pain in vagina 2, Discharge 2 Pain in back-legs 2, Sore in groin 1, Bleeding 2 Clinical diagnosis inical diagnosis Rt Vulva—local extens: Vagina—Ant Left Vulva with inguinal node 2 extension.

Wassermann 4 plus 1 2 plus 1, Negative 1, A C 1, (kahn 2 plus)

Biopsy Squamous cell 4

X ray diagnosis One case had metastases to ramus

Treatment at Cancer Hospital Custodial 3, X ray and radium 1,

Duration of life after admittance to Cancer Hospital 6 months 1 1 year 2, 2 years 1

Cause of death Sepsis 1, Inantion 2, Pneumonia 1
Autopsy findings Fistulae Ves Vag 2 Rectal Ext 1,
Inguinal Node Ext. 2, Pyelonephritis 1

TABLE XXI CERVIX

Color White 23 Colored 13

Marital state Marital 30, Single 2, Not recorded 4
Birthplace U S A 20 Foreign 16
Age Oldest 80 Youngest 25

Age aterage 25 to 30 4 31 to 40, 6, 41 to 50 13, 51 to 60, 8, 61 to 80 5

Children One child 1, More than one 24 (2x7) (3x5), No children 4, Unrecorded 7 Symptoms Vagenal bleeding 30, Pelvic pain 11 Pain in back 7, Urinary disturbance 5, Leukorthea 5, Istula 1, Large foot 1 Epigastric pain 1

ocal condition intolved Cervix 7, Vagina 12, Rectum 2 Supraclavical nodes 2, Swollen thigh 1, Frozen pelvis 19, Adnexa 29 lagnosis Possessia, 120 Local condition involved

Diagnosis Positive 35, Error 1, (Uterus)

Hassermann Positive 8

Precious treatments (a) Types of surgery, (13 Cases)
D&C 2 Ovarian cyst 1, Myomectomy 1,
Supracervical hysterectomy 6, Unhown purpose 3,
(b) Types of treatment previously given, Surgery
13, Radium 1, Radium and xray 4

Biopsy Squamous cell 22 Transitional 4, Plexiform 2, Adeno ca 1, Undifferentiated 7 Complications Fistulae 7 (Rectal 4, Bladder 3), Intestinal obstruct 1, Intussusception 1, Urethral Biopsy

obstruction 1 Extension Local 12 Uterus 15, Bladder 3, Rectum 4 Vagina 12

Fistulae From Malignancy 1 From Treatment 6 1. Cystostomy 1), Yray therapy 16, Radium Therapy 5 Custodial 17, Nerve block 4

Amerapy 5 Custodial 17, Nerve block 4

Treatment of cases pretrously treated elsewhere Irradiation treatment 5, X ray 2, Colostomy 1, Custodial 2 Surgery alone 3, X ray 1, X ray and radium 1, Custodial 1, Surgery and stradiation 3, X ray 1, Custodial 2, D & C 2, X ray and Nerve Block 1, Custodial 2, D & C 2, X ray and Nerve Block 1, Custodial 2, D

Duration of life after admittance to Cancer Hospital Less than 1 month 16 1 to 3 montls 10, 4 to 6 months 5, 7 months to 1 year 4 (2 of 1 year), Over 1 year 1 (27 months)

Caise of death Pneumonia 11, Cachexia 15, Perito nitis 5 Nephritis 3, Uremia 2

Autopsy findings Routine 36 Metastases Lings 4, Pleura 2 Liver 6 Diaphragm 3 Appendix 1, Retroperationeal nodes 6 Ovaries 1, Omentum 1, Kidney 1, Adrenal 1, Supraclavicular nodes 2 Pyelonephrosis and hydronephrosis Unilateral 12, Bilateral 11

removal of the involved breast possible Palliative irradiation was employed in fifteen cases. In three bed-ridden cases radium was used in the form of a pack over bone In no instance was the disease cured or more than temporarily retarded (Table XIX)

There were four cases of vulva Vulvamalignancy, three of whom gave positive evidence of previous luetic infection. All four patients had borne children, two of the All patients were white and two colored four cases were of the squamous cell epithelioma type. In one case metastases was found in the pelvic bone (Table XX.)

The thirty-six cases autopsied disclosed some enlightening data white patients were almost twice as many as the colored This type lesion occurred most often in married women of the fourth

to fifth decade of life

Notwithstanding the admitted superiority of irradiation over surgical procedures for cancer of the cervix, quite a number of patients are still being treated by hysterectomy Our observations lead us to beheve, moreover, that cervix cancer remains localized for a long period of time and extension is local in most instances twenty-nine instances the adnexa were involved, in ninetcen a "frozen" pelvis condition existed

In our findings, fistulae occurred most often from two conditions, in cases where the technic of treatment was faulty, and in advanced cases from ulceration and

TABLE XXII. UTERUS

Color White 4, Colored 2 Marital state Married 5, Unknown 1 Birthplace U S A 3 Toreign 3 Religion Catholic 1 Protestant 5 Age Oldest 71, Youngest 39
Age average 30 to 40 1, 41 to 50 1, 51 to 60, 2 61
to 70, 1, 71 years, 1

Children Gravida 3, Non Gravida 1 Symptoms Metrorrhagia 5, Leukorrhea 2, Lass of weight 3

Physical examination Tixed uterus and adnexal in volvement 4, Cauliflower mass from cervix 1

Climical diagnosis Correct 4, Incorrect 2 (Both called Ca Cervix because cervix involved), 1 case called cervix with fibroid)

Wassermann All negative Previous operation Hysterectomy 1

Biopsy Adeno ca 5, Sarcoma 1

Treatment at Cancer Hospital Custodial 3, A ray and radium 2, Lap for peritonitis-cecostomy 1

Duration of life after admittance to Cancer Hospital Less than 1 month 3 1 to 3 months 1, 3 to 6 months 1, 2 years 1
Cause of death Pneumonia 2, Inamition 2, Peritonitis

Autorsy findings Ulcerative endocarditis 3 Edema of meniges 1, Omentum 3 Perforation into rectum sig moid, and ileum 1, Liver 2, Peritoneum 1

Sarcoma case—arose in a fibroid—gave leg pleura, liver, mesentery, ovaries, ribs long bones and skull metastases

TABLE XXIII. OVARY

Color: White 15; Colored 3.

Marital state: Married 16; Single 2. Birthplace: U. S. A. 4; Foreign 12; Unknown 2. Age: Oldest 68; Youngest 32. Age average: 32 to 40, 4; 41 to 50, 2; 51 to 60, 5; 61 to 70, 6; Unknown 1. Children: No child 0; 1 child 3; More than 1, 1. Anatomical position of lesion: Abdomen 15; Rectum 4; Skin 1; Chest 3; Axillary nodes 1; Large liver 1; Cervix 1; Fistula 3. Diagnosis: Error 5 (Cervix 2; Rectum 1; Questionable 1; Ca. stomach 1). Wassermann: Positive 2; Questionable 1. Previous treatment: Surgery 6; Hysterectomy 2; Surgery and x-ray 1; Radium 1; X-ray and radium 1. Biopsy: Papillary ca. 7; Adeno. ca. 8; Undif. 2; Psammo ca. 1. Extension: Bladder 1; Uterus 1. Treatment at Cancer Hospital: Custodial 10; X-ray 5; X-ray and radium 2; Surgery and x-ray 1. Duration of life after admittance to Cancer Hospital: Less than 1 month 8; 1 to 3 months 7; 4 to 6 months 1; 6 months to 1 year 1; Over 1 year 1. Cause of death: Peritonitis 4; Pneumonia 3; Cachexia 9; Cardiac 3. ntopsy findings: Ovary 3; Pleural e Pleurisy 1; Peritonitis 2; Ca. rectum 1. Autopsy findings: effusion 2:

TABLE XXIV. PROSTATE

Metastasis: Rectum 4; Pleura 3; Peritoneum 3; Lungs 3; Kidneys 1; Omentum 6; Liver 8; Diaphragm 4; Spleen 3; Lymph nodes 4; Vagina 1; Uterus 1; Bladder 1; Stomach 1; Intestines 3; Axillary nodes 3; Cavernous hemangioma of liver.

Color: White 19; Colored 3. Marital state: Married 7; Single 6; Widowed 8. Birthplace: U. S. A. 9; Germany 5; Ireland 4. Religion: Catholic 7; Protestant 13; Hebrew 2. Age: Oldest 76; Youngest 55. Age average: 55 to 60, 5; 60 to 70, 10; 70 to 76, 7. Chief complaint: Frequency 9; Pain on urination 6; Pain in bones 9; Difficulty in urination 4. Diagnosis: Correct in all 22 cases. Wassermann: One 4-plus, negative on re-examination. Previous treatment: Cystostomy 6; Prostatectomy 2; Prostatectomy and radium 2; None 8. Histological type: Adeno 12; Small cell ca 1; Small cell scirrhus 1.

X-ray findings metastases: Sacrum 1; Pelvis 8; Femora 4; Spine 4; Ribs 4; Skeleton 3.

Treatment at C. C. I.: Cystostomy 6; Nerve block 1; Custodial 5; Paracentesis 2; X-ray to prostate 13; X-ray for bone metastasis 3.

Duration of life after admittance to Cancer Hospital: 1 to 6 months 16; 6 to 12 months 2; 1 year 2; 2 years 2.

Cause of death: Pneumonia 13; Inanition 7; Heart failure 1.

Postmortem findings: Pneumonia—Lobar 4, Bronch. 10; Pyelonephritis 10; Hydroureter 3; Hydronephrosis 4; Cystitis 5; Renal calculus 1.

Other metastatic deposits: Lungs 1; Spleen 1; Liver 1; Peritoneum 2; Mesenteric nodes 3; Retroperitoneal nodes 2; Local extension 6; (Includes inguinal nodes).

Incidental findings—Cause of death: Paralytic Ileus 1 (One case who had prostatectomy followed by radium needles developed a paralytic ileus); Peritonitis 1; Cellulitis of Penis 1.

Duration from onset of illness: 0 to 1 years 11; 1 to 2 years, 7; 2 to 3 years, 4; X-ray had no effect. Early fatal cases also had x-ray.

malignant extension. This latter, however, was a very late occurrence and less frequently found than that associated with faulty irradiation technic. Metastases were not common in the cases studied and occasional appearances were rather unusual in occurrence.

There were six cases or sixteen per cent with liver involvement. In no instance were we able to find evidence of irradiation destruction of the ureters, but in twenty-three cases ureteral obstruction was found, twelve unilateral and eleven bilateral. It should be emphasized, however, that in every case this obstruction was due to malignant extension to the pelvic nodes with malignant lymph-node encroachment on the ureters with subsequent tube block. In spite of the finding of bilateral ureteral blockage at autopsy in eleven cases, only two cases were reported as having died from uremia.

In four instances of severe pelvic and thigh pain nerve block was attempted, but in no case was permanent relief secured by

this procedure.

In only one instance did pelvic extension of the malignant process require colostomy for relief of lower intestinal obstruction. Although irradiation controlled the bleeding in all instances, in none of the cases did it control the destructive process of the disease. Reviewing the modes of treatment administered to the patients before they entered the Cancer Hospital, we are of the conclusion that active treatment, to be of value, must be properly applied and effected when employed, otherwise the condition first Secondary progressively becomes worse. treatments, whatever their nature, are of little avail in arresting the cancer process. Death in cervix cancer occurred in most instances from malignant inanition cachexia and in only five cases was nephritis or uremia the cause; terminal pneumonia occurred in eleven cases, and peritonitis in five. (Table XXI.)

Uterus: Six cases of malignancy of the uterus were autopsied. In four the diagnosis was correct; in two cases cancer of the cervix was erroneously made because the principal findings showed involvement of the cervix. In one case sarcoma was the pathological finding and in four the adnexa Bleeding was the most was involved. prominent symptom exhibited by all cases. In only one was a previous hysterectomy performed. Active treatment at the Cancer Hospital was possible in only two cases, x-ray and radium being employed.

The sarcoma case was unusual in as much as it arose seemingly on a previous fibroid development in the uterus; in this case metastates were found in the lung, pleura, liver, mesentery, ovary, ribs, long bones,

Because this case was so adand skull vanced, only custodial care could be given The diffuse metastates suggested that we were not treating the usual cancer of the uterus (Table XXII)

A study of the eighteen cases of ovarian malignancy showed their number to be almost equal in all decades, the smallest number occurring in the fourth and fifth decades Abdominal swelling was the most prominent symptom in most in stances and diagnosis was not difficult

In spite of all treatments, death occurred after admission three months Extension and metastasis were rapid and widespread, the liver and peritoneum being most often involved. In our opinion, early radical extirpation of the malignant tissues in the abdomen, followed by intensive x-ray therapy, is the only treatment of value, and any other measures are of little avail in arresting the progress of this disease (Table XXIII)

Prostate In the twenty two prostate cases, lues was concomitant in only one instance The usual history indicated occurrence of the cancer for years before death and, therefore, in our experience this disease is one of slow progress Surgical procedures exclusively were employed in this disease and in only two cases had irradiation been employed Bone metastasis occurs in late cases rather frequently, twelve were so involved. It was noted too, that diffuse generalized visceral metastases were frequently found, contrary to our previous ideas in this matter At the Cancer Hospital, x ray therapy was used in all instances for palliation alone, since it was of little value in arresting the progress of the disease Terminal pneumonia was the most common anatomical cause of death (Table XXIV)

Testicle There was only one case au topsied and this proved to be one of chorio epithelioma The course of the disease was very rapid and treatment was only pallirtive (Table XXV)

Bladder In only three of the eight cases of bladder malignancy was hematuria a noticeable symptom before death and in only one instance was the Wassermann posi-In seven cases the disease was so advanced that only custodial care could be given Five cases had a suprapubic opera-Metastases were uncommon (Table tion XXVI)

Kidnev Only three cases of kidney malignancy came to autopsy In two cases a correct diagnosis was made during life In two cases, the extensions were first discovered, in the vagina in one biopsy proving hypernephroma, in one a supraclavicular

TABLE XXV MALIGNANT CASE

Cloriocpitlelioma-Testicle White male 26 years old married born U S A

Symptoms Pain in spine, swollen testicle vomiting Clinical diagnosis Teratoma testicle with metastasis

ray eramination Metastasis to lung, Left ureter blocked, hydronephrosis A Z test positive-mass in pelvis

Treatment \ ray therasy Cause of death Toxemia Duration of disease 7 months Duration at lostital 2 months Autobsy Chargospitlehoma of left testicle

Metastasis Lung Liver Kidney, Retroperitoneal lymph

TABLE XXVI BLADDER

Color White 6 Colored 2 Marital state Married 7 Single 1 Birti blace U S A 4 loreign 4

Religion Catholic 2 Protestant 4 Unknown 2 Age Oldest 90 Youngest 52 (both male)

Age average 52 to 60 3 61 to 70, 4, 90 years 1 Sex Male 6 Female 2

Sysptoms Incontinence 3, Hematuria 3 Dysuria 4

Retention 2 Clinical diagnosis Correct 5 Incorrect 2 (Ca prostate 1 Heart disease 1) History poor

Yray diagnosis 1 case showed organic neoplasm of Iladder by lipiodol 1 case showed pelvis and skull metastasis

ll assermann Positive (1 plus) 1 Negative 6 Previous treatment Previous operation 4 (Supra

pubic) Biopsy Par epithelial 1 Papillary 1 Transitional 2 Malignant

Treatment at Cancer Hospital Custodial 8 Supra pubic 1 H V x ray 1 Duration of life after admittance to Cancer Hospital 1 to 3 months 5 3 to 6 months 1, 7 to 12 months 1 2 years 1

Cause of death Uremia 3 Pneumon a 4 Peritonitis 1 dutopsy findings Pyelonephritis 7 Extension to ureter
1 Liver 1 Extension to prostate 1 Vesicorectal 1 Live f stula 1

Metastases to Liver 1 Pelvis and skull 1

TABLE XXVII KIDNEY

Color White 3 Marital state Married 2 Single 1 Birtl blace Foreign 3

Religion Catholic 1 Protestant 2 Age 38 years 1 42 years 1 76 years 1 Sex Male 2 Temale 1

Symptoms Pain in back 3 Dysuria 1

Clinical diagnosis Correct in 2 cases Error in 1 case (Called Hodgkin's or Lympho Sa or Thyroid Ca with Metastases)

Yray diagnosis Lung Metastases 2 If assermann Negative 2 Positive (3 plus) 1

Biopay (In 2 cases) Metastatic Hypernephroma from Vagina Papillary Ca probably from Thyroid—a sui raclassicular node (Proved to be Hypernephoma) Treatment at Cancer Hospital A ray 2 Custodial 1 Piysical examinations Large mass in abdomen-2 cases Negative physical 1 case

Duration of life after admittance to Cancer Hospital Less than 1 year 3

Cause of death Pneumonia 1 Cachexia 2

Autopsy findings Hypernephroma 2 Papillary ca 1 Metastases to Lung Metastases 2 Liver 2 Pelvic nodes 2 Ribs and vertebrae 2 node showed hypernephroma. In two cases, lung metastasis was noted in the roentgenogram, and bone involvement in two. X-ray therapy was employed in two cases but with little effect. (Table XXVII).

TABLE XXVIII. SOFT TISSUE SARCOMA

Color: White 3. (All Male.)

Marital state: Married 1; Single 2.

Birthplace: U. S. A. 2; Foreign 1.

Religion: Catholic 2; Protestant 1. Ages: 40 years 1; 48 years 1; 61 years 1. Symptoms: All complained of pain and mass. Local conditions involved: Left thigh 1; Buttock 2. Physical examination: Nodes 2 cases; 1 case of buttock sa. had axillary metastases. Previous operation: Removed surgically 3; (All within 1 year.) Treatment at Cancer Hospital: X-ray 3. Duration of life after admittance to Cancer Hospital: Less than 1 year 2; 2 years 1; (neurogenic). Cause of death: Pneumonia 2; Inanition 1. Autopsy findings: Spindle cell 1; Neurogenic sa. 1; Myxo, sa. 1.

TABLE XXIX, MALIGNANT CASE

Cerebellar Tumor: White, male, 12 years old, single. born U. S. A. Symptoms: Headache, nausca, vomiting, unsteady gait, blindness, protruding mass from skull.

Wassermann: 2-Plus.

Treatment: Spinal tap; decompression of skull; antileutic.

Cause of death: Coma.

Duration of disease: 1 year. Duration at hospital: 3 months.

Autopsy: Cerebellar tumor; medublastoma.

Other findings: Pulmonary metastases 2.

TABLE XXX. MALIGNANT CASE

Branchiogenic Ca. of Neck: White, male, 50 years old, married, foreign.

Symptoms: Swelling and pain in neck, cough. Physical examination: Large, ulcerated neck tumor.

Biopsy: Branchiogenic carcinoma.

X-ray examination: Suggested tbc. Treatment: Custodial care.

Cause of death: Meningitis.

Duration of disease: 11/2 years.

Duration at Hospital: 1 month.

Autopsy: Branchiogenic Ca. with metastasis to neck, tracheobroncheal lymph nodes, and liver; Serous meningitis and chronic pulmonary tbc.

TABLE XXXI. MALIGNANT CASE

Choroid Melanoma-Right Eye: White, male, 32 years old, married, born U. S. A. Symptoms: Ataxia, tumor of right eye, pain in limbs. Previous treatment: Enucleation rt. eye (6 months.) Previous examination: Orbital tumor, very large nodular liver. X-ray examination: Shows destructive skeletal metastasis. Treatment: X-ray therapy. Duration of disease: 6 months.

Duration at hospital: 1 month.

Autopsy: Melanoma of choroid right eye.

Metastasis to: Liver, lung, pancreas, bones and nodes.

Leukemias, Hodgkin's disease, and lympho-These conditions were only sarcoma: temporarily controlled by irradiation. Soft tissue sarcomas were little affected by any form of therapy. Death ensued either from pneumonia or inanition. (Table XXVIII).

TABLE XXXII. MALIGNANT CASE

Generalized Carcinomatosis: White, male, 55 years old, married, foreign.

Symptoms: Pain throughout body, stiff neck, loss of weight.

Physical examination: Numerous small skin nodules; Large abdominal mass; Nodes in neck.

X-ray examination: Destructive metastasis throughout skeleton.

Biopsy: Neck nodes; Adeno. ca.

Treatment: X-ray therapy.

Cause of death: Inanition; Cachexia; Pneumonia.

Duration of disease: 9 months.

Duration at hospital: 1 month.

Autopsy: Generalized carcinomatosis; lobar pneumonia.

TABLE XXXIII. LEUKEMIA

Color: White 3.

Marital state: Married 2; Single 1.

Birthplace: U. S. A. 2; Foreign 1.

Religion: Catholic 2; Protestant 1.

Age: 49 years 1; 57 years 1; 67 years 1.

Sex: Male 2; Female 1

Symptoms: Weakness 3; Abdominal pain 2; Masses, nodes 1 (lymph).

Physical examination: Lymphatic—all nodes plus very large spleen Myelogenous—Spleen 2 (large); Liver

Clinical diagnosis: All correct.

X-ray diagnosis: Lymphatic had pleural effusion.

Wassermann: All negative.

Treatment at Cancer Hospital: X-ray 2; Custodial 1. Duration of life after admittance to Cancer Hospital: Lymphatic: 6 months. Myclogenous: 4 months 1 case; 1 year 1 case.

Cause of death: Pneumonia 1; Inanition 2.

Autopsy findings: Lymphatic: Spleen and all nodes.
Myclogenous: 1 case had leukemia areas in liver,
kidneys, and sternum.

TABLE XXXIV. HODGKIN'S

Color: White 2; Colored 1.

Marital state: Married 3.

Birthplace: U. S. A. 1; Foreign 2.

Religion: Protestant 2; Hebrew 1.

Ages: 38 years 1; 49 years 1; Unknown 1.

Sex: Male 2; Female 1.

Symptoms: Weakness 3; Itching 1; Lumps 1.

Local condition involved: Glands 1; Liver 1.

Clinical diagnosis: Correct 2 (1 by biopsy from previous hospital).

X-ray diagnosis: Rt. Lung involved. Pressur formity of stomach from extra-gastric mass. Pressure de-

Previous operations: 1 case had lap. 1 month pre-vious for unexplained temp, found retroperitoneal masses.

Treatment at Cancer Hospital: X-ray and radium 1; Custodial 1; Radium 1.

Duration of life after admittance to Cancer Hospital: Less than 1 year 1; 3 years 1; 6 years 1.

Cause of death: Pneumonia 2; Infection 1.

Autopsy findings: Retroperitoneal Hodgkin's 2; Tbc. of Spicen, Lungs, Glands 1; Mediastinal 1; Tbc. of Lungs with cavitation 1.

There was one case each of cerebellar tumor (Table XXIX); branchiogenic carcinoma of the neck (Table XXX); choroid melanoma of the eye (Table XXXI); and generalized carcinomatosis (Table XXXII) Treatment in these cases was palliative only. (Tables XXXII, XXXIV, XXXV).

Primary focus unknown: In five cases

Primary focus unknown. In five cases in spite of careful autopsy search no primary lesion was found to account for the metastatic malignancy present in these

TABLE XXXV. LYMPHOSARCOMA

Color White 2 (Both married—ages 43)
Birthylace Austria 1, U S A 1
Symptom: Cough 1, Vale 1
Symptom: Cough 1, Abdominal pains 2
Local condition involved 1 case had lung signs like pneumona. No glands, Other case had glands, liver, spleen
Beastrann Negative 1, Fostiwe (4 plus) 1

Type tumor Reticulum Cell 2
Treatment at Cancer Hospital 1 case—tapid deat
Other case—X ray to all involved areas

Cause of death Pneumonia 2
Autops; findings Mediastinal nodes 1, Retroperitoneal
2, Lung 1, Liver 1

Duration of life ofter admittance to Cancer Hospital.

1 year 1, 3 years 1.

TABLE XXXVI. MALIGNANCY—PRIMARY FOCUS UNKNOWN

Marital state Married 1, single 4
Birthplace, Foreign 4, U S A 1
Ages 38, 55, 60, 73 84
Primary complaint Lump in neck 3, Mass in

Color White 5

Primary complaint Lump in neck 3, Mass in axilla 1, Pains in neck chest, etc., and loss of weight 1 Physical findings Tumor mass in neck 4, tumor mass in iliac fossa 1

Clinical diagnosis Tumor nerve plexus 1: Carci noma esophagus 1, Metastatic malignaney of neck 3 Biopry Metastatic carcinoma 1, Metastatic transitional cell 1, Adeno carcinoma—probably thyroid 1 Metastatic squamous cell epithelioma 1, None 1 X ray findings Extensive skeletal metastasis 2, Pulmonary consolidation 1, Pleurisy 1, Negative 1 Treatment X ray therapy 3, Custodial care 2

Duration of life I css than 1 month 1; 1 to 3 months 3, 6 months to 1 year 1

Cause of death Pneumonia 3, Hemorrhage 2

Autopsy findings' Generalized carcinoma—primary un determined 2. Malignancy limited to axillary area, site of involvement 1, Metastatic carcinoma, neck nodes—primary undetermined 1, Pneumonia 2

TABLE XXXVII NONMALIGNANT

Sex Male 4, Female 3
Martial tate Married 6, Single 1
Age: 32-54-55-56-63-67-74,
Climend dagmosts: 1 Pelwic absects 2 Splenomerally
3 Carriem of the second of the second

patients at death Because of the metastatic character of the lesions present and the histological findings of these tumors, we are not ready to characterize these lesions other than as secondary malignancies with the primary focus undetermined (Table XXXVI).

Nonmalignant Because the Cancer Hospital is a free Municipal Institution, whose beds are always available for the reception of cancer patients from any hospital in the city without delay or undue questioning from time to time there are transferred to the patients in whom after careful examination no evidence of malignancy can be found There were seven such cases In three cases malignancy was suspected and in all cases diagnosed clinically, though autopsy proved them to be of the nonmalignant group (Table XXXVII).

Conclusions

Malignancy, in any location, is controlled only when recognized and diagnosed early and when complete adequate and intensive treatment is carried out at once. Irradiation is effective in controlling malignancy in its early stages and is a worth-while palliative measure only in a number of advanced cases

Irradiation is of little benefit in the treatment of advanced malignancy. Bone malignancy was little affected by irradiation therapy, nor was cancer of the lung responsive to this form of therapy.

In cases of advanced malignancy much can be done by judicious employment of surgery and irradiation to ameliorate acute urgent disturbances of physiological body functions and as a palliative measure to reduce the severity of pain associated with cancer. Surgical removal of obnoxious and decayed tissue may often prolong life free from misery though the primary malignant lesion progress and ultimately cause death

Malignancy may metastasize anywhere and the primary lesion is not always limited to the area visible or palpable. Irradiation treatment for cancer must cover the whole body and those areas most likely to become involved by extension and metastasis.

My thanks are herewith tendered to my staff of the New York City Cancer Institute who materially aided in the preparation of the data for this paper.

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Discussion

DR. ANGELO M. SALA, New York City-Dr. Kaplan has clearly summarized for us the lessons of the autopsy table. His task has been necessarily concerned with the seamy side of the cancer picture for in the hospital of the New York City Cancer Institute we usually get what is left by others and often it is not much. I know that there is another, a fairly cheerful side to the picture; that there are cures of malignant disease. Yet, if we are to enhance our diagnostic acumen and thereapeutic skill, we must pause now and again to look back at the mistakes that lie buried in countless graves. It is here that the pathologist who is interested in cancer (please note that I refuse to employ the term "cancer pathologist") comes into the sphere of his greatest usefulness, and becomes again what he should never have ceased to have been, a doctor and an adviser to his colleagues.

As I think back on the silent teachers of the autopsy table, certain indelible impressions come to the fore. One of them is that a certain percentage of errors in diagnosis will ever be with us; but I must say that if doctors thought more and more that there is such a disease as cancer, using the word in its broadest sense, and suspected it more often, this percentage would soon be reduced to an irreducible minimum. Lumps in breasts are still treated with salves by physicians, cervical node enlargements are still subjected to alpine light treatments without the benefit of even a blood count, glycerine tampons are still applied to early carcinomas of the cervix, and hemorrhoids are still treated as such with not even a digital rectal examination.

The presence of a positive Wassermann reaction still leads to prolonged antileutic treatment of lesions that are carcinomatous from the beginning. Unless we drive continuously at the fact that cancer is with us and will be with us in increasing numbers as more people live to adult life—for this very reason we must look for cancer as we do for other conditions—the tragedy of an unjustifiably large percentage of diagnostic errors is bound to be permanent.

Where the diagnosis has been made correctly and reasonably early, there are other lessons to be learned at the autopsy table. One of them is that certain neoplastic conditions are at present hopeless from the start and run a definite course with or without therapy of any sort. Another one is that the diagnosis of malignant neoplastic disease brings about in some physicians a distinctly defeatist attitude. I have had occasions to point out to our staff on the basis of autopsy findings, dove-tailed with the clinical history,

a reasonable certainty on my part that courageous surgery might have saved some cases of gastric carcinoma that have come Some carto postmortem examination. cinomata of the large intestine also should have had a more daring approach than a simple colostomy. I am also impressed with the fact that the treatment of cervical cancer leaves in many instances much to be desired. Therapy that clears up the local lesion and allows the metastases to go merrily on is plainly insufficient. On the other hand the type of therapy that destroys malignant tissue and at the same time brings on huge vesicovaginal and rectovaginal fistulae with death ultimately by sepsis is plainly too much. There are still people using radium who know neither its limitations nor its destructive potentialities.

The question of metastases from the standpoint both of location and time of appearance must be considered. In a general way it is true that the sites of metastases from a given primary malignant neoplasm can be predicted in a fairly accurate manner. And yet our experience is daily pointing out that metastases do occur outside of the beaten paths. It is in fact our distinct impression that they are going to be more and more common. As we enable cancer patients to live longer, automatically we give metastases more time to develop. On this basis, the criterion of the "five year cure" will soon have to be revised; perhaps we had better stop speaking of "cures" and call them "arrested cases" much as we do in phthisis. Certainly a patient is not cured of her breast carcinoma when rib and ovarian metastases are found nine years after the radical mastectomy. We have had such cases. Again in the light of our autopsy experience, we are not going to stop at the pelvis when looking for extensions of cervical carcinoma, because we have found them as high as the hilus nodes and the lungs; nor are we going to stop at the neck when looking for extensions of tongue and pharyngeal carcinoma because we have found them in ribs and heart muscle. I positively refuse to say that such and such a type of cancer will never do this or that, because every time I have made such a statement, my next autopsy is wrong.

There is nothing that a malignant neoplasm cannot and will not do if given time and opportunity. With this thought forever uppermost in his mind the cautious physician, when dealing with cancer, will forever be on his guard because being in the usual case handicapped from the start, inattention will often make victory on his part utterly unattainable.

VACCINE THERAPY IN CHRONIC ARTHRITIS

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In recent years a great deal of attention has been given to the effect of vaccine therapy in chronic nonspecific arthritis. Innumerable workers have reported, with considerable diversity of opinion, the results of their investigations. The purpose of this article is to consider the merits of vaccine therapy in chronic arthritis and therefore present to the practitioner, first, summaries and discussions of the different methods of vaccine therapy; second, clinical and laboratory evidence for and against the different vaccines; third, therapeutic results of vaccine therapy as reported; and finally my own impression of the relative value of vaccine therapy.

It is impossible to include here abstracts of the voluminous and often contradictory literature on this subject; I have summarized only the papers that appear

to be the most significant.

Vaccine therapy is based on the assumption that nonspecific chronic arthritis appears to be due to an infection of bacteria of low virulence. So far there is no general agreement regarding a specific bacterium, since no organism has been isolated consistently by any of the observers who have cultured blood, synovial fluid, joint tissues, and subcutaneous nodules. In recent years, however, experimental work of most observers in the United States,1-8 has pointed to the streptococcus as the organism most frequently isolated in chronic rheumatoid, so-called "atrophic" or "infectious" arthritis. Their findings are today generally accepted, and the rheumatoid type of chronic arthritis is looked on as due to an infection by streptococci of low virulence. On the other hand, Crowe and his school in England are convinced that osteoarthritis, also called hypertrophic or degenerative arthritis, is the result of a streptococcus infection, whereas in most cases of rheumatoid arthritis, we have to deal primarily with a staphylococcus infection, especially with the so-called micrococcus deformans, and that streptococci involved are only secondary invaders. Burbank10 and his followers are

inclined to accept bacterial infection as the etiological factor in both types of arthritis.

This very decided difference of opinion demonstrates the lack of definite proof that a single specific organism causes chronic arthritis. Nevertheless, the generally accepted existence of bacterial infection has served as a justification of the use of vaccine therapy.

Methods of Vaccine Therapy

Vaccine therapy is employed either by the subcutaneous or by the intravenous method. Notwithstanding the fact that the two methods are based on quite different theories, their therapeutic object is identical, the endeavor to overcome the assumed bacterial infection.

Subcutaneous administration: Subcutaneous vaccine therapy is based on the assumption that vaccine as an antigen stimulates the production of antibodies and increases the immune reaction of the body against infection. The antigenic activity of the vaccine is primarily associated with proteins, probably with their aromatic radicals, but certain lipoids and carbohydrates appear also to figure in the reaction. Subcutaneous vaccine treatment gives rise to humoral and cellular insmunity; that is, the cells of the tissues are stimulated, and the products of that reaction are set free in the body fluids. Subcutaneous vaccine therapy has been used extensively and exclusively for many years in the treatment of arthritis, and there are still enthusiastic advocates of this method.

Intravenous administration: The recent theory of Swift,11-12 Klinge,13 and Zinsser14 that allergy constitutes the most important background for the development of chronic arthritis, brought forth the intravenous administration of vaccines. These workers believe that the pathological changes in chronic arthritis, although they may be caused by bacterial infection, are not the direct result of the action of specific bacterial toxins, but arise from a sensitization to the bacterial protein. The experimental works Swift18-18 and Clawson19 in rheumatic

fever and chronic arthritis suggested that subcutaneous vaccination, instead of desensitizing the hypersensitive arthritic individual, tends to increase his hypersensitiveness, while, on the other hand, repeated small doses of vaccine administered intravenously at proper intervals desensitize the patient and produce a higher degree of protective immunity. As a result of these findings subcutaneous injection was abandoned by most men, and vaccine is now being administered intravenously far more widely.

Types of Vaccines

The vaccines used in chronic arthritis are of two general types: autogenous vaccines and stock vaccines. In discussing their relative merits special attention must be given to the different commercial vaccine products in order to make it clear to the practitioner what he may expect from such vaccines.

Autogenous vaccine: Following the assumption that vaccine to be efficient must be as specific as possible, many investigators believe that autogenous vaccine is the only effective form of vaccine therapy. Cultures are taken from throat, tonsils, sinuses, nasopharynx, abscessed and devitalized teeth, synovial fluid, duodenal content, stool, intestinal wall, urine, prostatic secretion, neck of the uterus, and other possible sources. From the autogenous culture the assumed pathological strains are isolated and a heat or phenolkilled vaccine is prepared from them. Theoretically, autogenous vaccine therapy is very promising, but it does not prove to be so successful in practice.

The different methods which have been recommended for the selection of specific vaccine strains, as complement fixation, agglutination, and skin test, are based on theories without definite proof and cannot be accepted without reservation. Such positive tests cannot be considered as conclusive evidence that the infecting agent causing the arthritis has been found. There are many other complicating factors which may be responsible for the positive test.

No proof has been furnished that the cultured strains are really responsible for the arthritis changes, inasmuch as most of these strains can also be found in perfectly healthy individuals. The fact that

in the cultures of arthritis patients several strains of bacteria are usually found, makes it difficult to believe that the arthritis process is caused simultaneously by several different strains of bacteria.

Burbank²⁰ and his followers, to make the autogenous vaccine still more powerful, mix it with a vaccine prepared from all the fecal strains that gave a positive complement fixation with the serum of the patient.

Crowe²¹ and his followers use a polyvalent mixed type of vaccine consisting of autogenous vaccine and a stock vaccine composed of 156 strains of nonhemolytic streptococci, and also a staphylococcus stock vaccine prepared from the strain of micrococcus deformans.

Autogenous vaccine is generally employed subcutaneously as an immunizing factor; only a few men administer it as a desensitizing agent intravenously.

The usual strength of autogenous vaccine for subcutaneous administration is 10,000 millions in one c.c. The initial dose is usually 0.1 c.c., and if there be no systemic reaction, the dose is increased 0.1 c.c. each time, until the total volume of one c.c. is reached. The dosage seldom exceeds one c.c. If a reaction follows the injection, such as increased pain, chills, temperature, etc., the next dosage should be reduced to half the amount which caused the reaction. For intravenous administration, much smaller doses are used, similar to stock vaccines.

Autogenous vaccine, generally made up from several strains of bacteria, being a mixed vaccine, cannot be as specific as it is assumed to be. In a mixed vaccine of so many strains, as are the vaccines used by Burbank, and Crowe and his followers, there cannot be much specificity, and I agree with Short²² and his coworkers that the effect gained from autogenous vaccines is a nonspecific effect.

Stock vaccine: The finding of Cecil²³ and the work of Small,²⁴ and Clawson and Wetherby²⁵ indicate that there are typical strains of bacteria in chronic arthritis which may be responsible for the disease. This assumption led to the introduction of stock vaccine prepared from these typical strains. Today most clinics in this country use these different stock vaccines. The best known and most widely used stock vaccine is prepared

from Cecil's typical strain of alpha prime streptococcus, labelled Ab 13. There are also many other stock vaccines in use from other strains of streptococcus hemolyticus and streptococcus viridans. Stock vaccines are usually heat-killed vaccines; phenol-killed stock vaccines are rare. Stock vaccines are usually given intravenously for desensitizing purposes. A very small dosage is given at the start, 10.000-50.000 bacteria, increasing gradually, avoiding pronounced constitutional reaction, and especially joint reactions, An injection is given every four or five

important advantage of stock The vaccine is that it greatly simplifies vaccine therapy and eliminates the tiresome culturing of every possible focus for autogenous vaccine. The drawback of a stock vaccine is that -- so far -- we cannot accept any specific exciting cause as an etiological factor in chronic arthritis since no organism has been found consistently by all observers (see above). workers have found not only different bacteria of the same group, but quite different groups of bacteria, all seemingly

responsible for the disease.

This fact alone undermines the theoretical basis of the specificity of stock vaccine treatment. Until more positive findings reveal one specific organism as the etiological factor in arthritis, the stock vaccine therapy of today cannot be looked on as a specific therapy for arthritis.

Commercial vaccines: The different commercial vaccines put on the market by various companies are usually mixed stock vaccines. The vaccines of Lederle and other companies contain several strains of streptococci and staphylococci, and some companies add to it colon bacilli and pneumococci. They are heat-killed or chemically-killed vaccines. There are two vaccines on the market which claim specificity in arthritis. One has been brought out by Lilly and Co. and is made up from a strain of streptococcus viridans or alpha streptococcus isolated by Wetherby and Clawson. These workers claim that the effect of this vaccine is rather a group specific effect. It is used intravenously for desensitization and immunization. The micro-organism was isolated from the blood of a patient with rheumatic fever and pericarditis. It has been under cultivation for nine years. The vaccine is given intravenously. The initial dose recommended is one hundred million (1 c.c.) killed streptococci, and is increased one hundred million (1 c.c.) weekly until eight hundred million (8 c.c.) This large dose, tolerated is reached. without any reaction, arouses some doubt in our minds as to the toxic products of the strain. It may be that the strains cultured for so many years have lost their virulence and have a decreased toxicity and immunizing power, and that therefore the vaccine prepared from them can be tolerated in so large a dose. The claim as to the group specificity of the vaccine is also debatable. Taking into further consideration that there is no proof that strains of streptococcus viridans are really responsible for chronic arthritis, the claimed specificity of the Lilly vaccine

cannot be accepted.

The special arthritis vaccine introduced by Parke, Davis & Co. is called Streptococcus Immunogen (Arthritis). It is claimed to be a superior biological product, providing the maximal amount of antigenic substance with the least possible amount of nonspecific protein. It is based on the theory that immunogens are ectoantigens, derived mainly from the ectoplasm of the bacterial cells. In preparation the live organisms are extracted with physiological salt solution immediately on being taken from the culture medium. The vaccine is standardized so that one c.c. of vaccine contains the antigen of two thousand million organisms. The initial dose is 0.1 c.c. (200 million antigen) intravenously and is increased slowly to three to five c.c. (10,000 million antigen) This vaccine is a mixed vaccine prepared from different strains of streptococcus viridans and hemolyticus. The theory on which the vaccine is prepared is not generally accepted, and the fact that such enormous doses are tolerated without any reaction causes the same doubt as to its efficacy.

Therapeutic Results

The voluminous literature concerning vaccine therapy by different types of vaccines and by different methods of administration, as a rule gives results based on clinical observations only. The evaluation of these claims presents inherent difficulties. The main objections are:
(1) lack of efficient adequate control;
(2) differing interpretations of the varying forms and degree of the disease;
(3) comparatively short time of observation of a long standing chronic disease in which spontaneous improvements and re-

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tion of a long standing chronic disease in which spontaneous improvements and remissions are common; (4) the fact that in most cases vaccine therapy was combined with other forms of treatment, such as rest, diet, physical therapy, and drugs, making it impossible to obtain a clear-cut picture and decide which form of therapy was most beneficial.

The therapeutic reports can be divided into three groups. The first group claims beneficial results from vaccine therapy in every type of arthritis and believes in its specificity. The second group uses vaccine only in the rheumatoid type of arthritis where infection is generally accepted as the etiological factor. Its members claim to have comparatively better therapeutic results if vaccine therapy is instituted along with other forms of treatment. The third group could not find better results with vaccine therapy than with other usual methods.

Table I gives a summary of these reports. In the first group are found the reports of Burbank and Christensen,²⁶ Crowe,²⁷ and Wetherby-Clawson.²⁸ They use vaccine in every type of chronic nonspecific arthritis and report a general

improvement in 80–92.5% of the cases. Burbank and Crowe admit having employed at the same time other forms of therapy, such as diet, drugs, physical therapy, and removal of various foci of infection.

I do not doubt the sincerity and good faith of these reports, but the comparatively short time of observation, the lack of differentiation of the varying forms and degrees of disease makes them incomplete and inconclusive. It is difficult to explain why other workers, employing the same methods, could not duplicate their results. It is also questionable if vaccine therapy has any justification in both types of arthritis. The majority of the workers look upon osteoarthritis as a degenerative senescent disease in which infection plays no part, and feel that vaccine therapy is out of place in this type of arthritis. This is the conviction of Cecil,29 Gray,30 and Rawls31 whose reports are contained in the second group. They believe that vaccine should be applied only in cases of rheumatoid arthritis. As to therapeutic results, Rawls' paper is the only one which reports general improvement. He claims eighty per cent improvement in cases treated with vaccine, whereas without vaccine the improvement was only twenty-five per cent. The short time of observation (average ten months) and the criteria on which he based the

TABLE I
Therapeutic Results of Vaccine Treatments from Three Groups of Investigators

•			Form of	
Name	Type of arthritis	Type of vaccine	administration	Claimed results
Burbank and Christensen	Osteo and rheumatoid	Autogenous-stock (polyvalent)	Subcutaneous	Improvement in 92.5%
I Crowe	Osteo and rheumatoid	Polyvalent stock — autogenous	Subcutaneous	Improvement in mild cases 82% severe cases 52%
Wetherby and Clawson	Osteo and rheumatoid	Stock (strep. viridans)	Intravenous	Improvement in 80%
Cecil	Rheumatoid	Stock (AB 13)	Intravenous	Noncommittal on results
II Gray	Rheumatoid	Autogenous and stock	Intravenous Subcutaneous	Improvement in cases where other form of treatment failed
Rawls	Rheumatoid	Autogenous	Intravenous	Improvement in 79%
Congdon	Rheumatoid	Polyvalent stock (46 strain of strep, Viridans)	Subcutaneous	No better results than other methods of treatment
Stainsby and Nichols	Rheumatoid	Stock (AB 13) Autogenous	Subcutaneous Intravenous	Improvement in 35.6%
III Archer	Rheumatoid	Stock (AB 13 and Wetherby's strain)	Intravenous	No better results than other methods of treatment
Kinsella	Rheumatoid	Stock	Intravenous Subcutaneous	Not encouraging improve- ments
Dawson and Boots	Rheumatoid	Stock Autogenous	Intravenous Subcutaneous	No better results than other methods of treatment

conclusion of his observation, (the supposed lowering of the sedimentation rate which was not duplicated by other research workers) raise justifiable doubts as to acceptance of his report as conclusive Cecil and Gray are noncommittal regarding a definite percentage of improvement but report better results with vaccine therapy than without it

The third group, containing the papers of Congdon, 3° Stainsby-Nicholls, 3° Archer, 34 Kinsella, 3° and Dawson-Boots, 30° could not detect better results with vaccine therapy than with any other methods of treatment Stainsby-Nicholls' impressive and detailed report showed very disappointing results with every form of vaccine therapy. The low (35.6) percentage of improvement in their series of cases is very near to the natural tendency of improvement regardless of treatment.

During the last four years I have had the opportunity to observe the therapeutic results of vaccine therapy at the chinics of the Post Graduate, St Lukes, and Reconstruction Hospitals Autogenous and different stock vaccines have been used and administered subcutaneously and intravenously A complete survey of the therapeutic results, and a comparative study of vaccine and other forms of treat ment will be published later Quoted here are only the results of vaccine therapy of one hundred cases from the clinic of the They correspond Lukes Hospital findings of approximately with the Stamsby Nicholls (Table II) It was interesting to observe that normal saline injections were as effective as the different vaccines For control purposes in several cases the same patient was given a series of normal saline injections after a series of vaccine-without informing hm-and nearly every case showed the same improvement or retrogression as with vaccine This fact alone proves that vaccine did not produce in the above mentioned cases any specific effect. The improvement and "better feeling' were due perhaps to the psychological effect of an intravenous or subcutineous injection

Comment

Vaccine therapy is based on the as sumption that nonspecific chronic arthritis

appears to be due to a bacterial infection, although so far there is no definite proof of a single specific bacterium causing the disease

The method of administration and dosage is also unsettled. The concensus of opinion inclines to accept the intravenous method, giving small dosages of vaccine over a long period of time, avoiding pronounced constitutional, and especially joint reactions.

Since none of the vaccines can be accepted with justification as specific, it is difficult to decide which type of vaccine should be administered. At present there are no laboratory or immunological ways to compare the therapeutic value of the different vaccines, and there are favorable results and failures reported with each and all If it should be eventually determined which strain plays a definite etiological role, production of a high degree of active immunity against it, with a properly prepared vaccine, would prob ably be an effective specific therapy Until then all extravagant claims of specific vaccine effect should be discarded

The specific indications for the use of vaccine therapy are still an open question Some workers use it in every case and type of arthritis, while others totally disregard it In spite of the fact that the therapeutic results of vaccine therapy do not prove to be more effective than other forms of therapy, I believe it is a useful adjunct to our present method of treatment We should give it a fair trial in all cases of rheumatoid arthritis and it can be employed in every type of arthritis where a nonspecific protein therapy is indicated We should not expect that vac cine alone will cure arthritis, but besides the direct therapeutic effect, it has the great advantage that during a series of

TABLE II
RESULTS OF VACCINE THERAPY IN 100 CASES
OF CHRONIC ARTHRITIS

		Num ber of			
1 accine	Type of arthriti	e cases	Improved	No change	Worse
Streptococcus hemolyticus	Osteo Rheumato d	28 37	20 83% 35 13%	75% 35 13%	4 170%
Streptococcus viridans	Osteo Rheumatoid	7 9	40°° 33 4°°	60%	66 6°%
Autogenous	Osteo Rheumato d	7 12	28 57% 41 66%	71 43% 50%	8 34%

⁽From the Arthritis Clinic of St Luke's Hospital New York City)

injections one sees the patient at least once a week, and this gives the opportunity to conduct the program of all treatments more satisfactorily. The impressive psy-

chological factor of an injection also, undoubtedly, plays an important and beneficial role.

1100 PARK AVENUE

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SIXTH INTERNATIONAL CONGRESS ON PHYSICAL MEDICINE

The Sixth International Congress on Physical Medicine will be held in London, May 12-16, 1936. It will consist of sections on kinesitherapy, physical education, hydrotherapy and climatotherapy, electrotherapy, actinotherapy, radiotherapy and radium

American participants will sail therapy. from New York on May 2nd on the MV Britannic and return on May 31st on the SS Transylvania. Dr. Richard Kovacs, 1100 Park Ave., New York, is Executive of the American Committee.

DR. RAYMOND TO HEAD SEARLE RESEARCH

Announcement has just been made by G. D. Searle & Co., Chicago, of the appointment of Dr. Albert L. Raymond as Director of their Research Laboratories.

To take this Searle appointment, Dr. Raymond resigns from the Rockefeller Institute of Medical Research, with which he has been connected for the past nine years, the last seven of which he was an associate of Dr. Levene.

For two years he was National Research fellow, working on problems connected with the biological mechanism of carbohydrate degradation.

Dr. Raymond is a Californian and gained his Ph.D. at the California Institute of Technology, Pasadena in 1925. Afterwards he spent three years part-time teaching at California Institute of Technology and at the University, of California.

He is a member of the American Chemical Society and the American Society of Biological Chemists.

Says Dr. Raymond:

"I know of no field offering greater facilities for the practical application of biochemical research than the laboratory of a pharmaceutical house. Here we come in first hand contact with the problems of that working scientist, the practicing physician, and this is a great incentive to provide him with better chemical instruments with which to fight disease."

The minister sees people at their best, the lawyer sees them at their worst, the doctor sees them just as they are—Dr. James B. Herrick.

BACTERIEMIA FOLLOWING INSTRUMENTATION OF THE INFECTED URINARY TRACT

JOHN H. POWERS, M.D., Cooperstown

Early Conceptions of Catheter Fever

A most interesting and somewhat acrimonious discussion of the etiology of catheter, or urinary, fever was initiated by some remarks of Sir Andrew Clark¹ before the Medical Society of London in 1883. In his historical resume of the subject Sir Andrew stated in brief:

In 1780 it was known, but not distinctly expressed, that surgical interference with the urethra and bladder was sometimes, and in certain circumstances, followed by an irritative fever. It was not, however, until 1810 that Moffatt, as quoted by Valpeau, described a case of chronic stricture of the urethra in which simple catheterism was followed by rigors, irregular fever, purulent arthritis, and death. In 1832 Brodie distinctly mentioned the dangers of catheterism and described as occasionally occurring in consequences of it paroxysms of irregular fever like ague, leading sometimes to prolonged debility, sometimes to continued fever with rheumatic pains, and sometimes even to mania. He further stated that in some cases death followed. Valpeau entered much more minutely into the nature and relations of the fever. He alleged that in some perfectly healthy persons even easy catheterism may develop a consecutive and con-tinuous fever and that this fever has five vari-eties. In the first it consists of a single paroxysm, ending in malaise and debility, with paroxysm, ending in malaise and debitity, with recovery in a few days. The second consists of recurring paroxysms issuing in continued fever which is oftentimes fatal. The third con-sists of an inflammatory fever arising out of nephritis, phlebitis, or other local inflammation. The fourth is associated with purulent arthritis. The fifth consists of a rapid succession of violent paroxysms speedily ending in collapse and death.

Valpeau then points out, and very clearly, that in the second and fifth varieties he has never found present at the autopsies an adequate structural cause of death, and in those cases he is disposed to regard the origin of the fever as caused by the absorption of vitiated urinary constituents.

Thus we find the symptoms of "urinary fever" presented more than one hundred years ago and described so accurately that we are able to recognize from these careful observations two distinct types of pathological processes; (1) the general symptoms secondary to a primary ascending infection or the

superimposition of such an infection upon chronic renal disease and (2) symptoms which suggest the development of bacteriemia occurring shortly after urethral instrumentation in the presence of chronic cystitis.

In 1867 Sir John Fayrer² declared that the predisposition to catheter fever lay in the malarial state and its consequences, or else in incipient or advanced diseases of the kidneys or other parts of the urinary tract; that it began (and from him we have a new opinion regarding its etiology which persisted for many years) in a reflex disorder of the nervous system; that it was not due to toxemia, and that catheterism alone, without injury or sensible irritation, was in these circumstances sufficient to originate the febrile phenomena.

In these statements we find a differentiation in the types of urinary fever, the first of which was believed to be due to chronic renal disease and the second of which, for want of a more satisfactory explanation, was attributed to malaria or a reflex disorder of the nervous system. During the next several years the nervous theory acquired more and more adherents.

In 1877 Marcus Beck,2 describing the fever in which death may occur in from nine to forty-eight hours, stated that the predisposition to it lay in chronic disorders of the health, renal imperfections, and age; that the exciting cause was probably mechanical injury of the urethra, and that the fever was begotten through irritation of the spinocerebral and sympathetic nerves reflected upon the kidney.

All these authorities add that in a small but noticeable percentage of cases no adequate structural cause of death was found. Such was the knowledge of catheter, or urinary, fever during the last quarter of the last century.

With the development of the sciences of bacteriology and experimental surgery numerous contributions were made to the

From the Defartment of Surgery of the Mary Imogene Bassett Hospital, Cooperstown, New York. Read at the Annual Meeting of The Medical Society of the State of New York, Albany, May 15, 1935. pathology of the urinary tract. In 1898 a case was recorded by Moullin⁸ in which a small polypoid outgrowth from the neck of the bladder was removed through a perineal incision. A considerable amount of postoperative venous oozing occurred and the blood, coagulating in the prostatic urethra, caused straining. Two days later a rigor set in and from that time, during the six weeks that the patient lived, the temperature was exceedingly irregular, and the pulse rapid. Moullin goes on to state:

Throughout the whole time the urine was acid but it was loaded with long slender bacilli which, from my later experience in connection with them, I have little doubt were the bacteria coli and from the intensely offensive character of the intestinal contents, a peculiarly virulent form of it. During the straining that followed the operation, it seems probable that some of these virulent bacilli were forced into the open ends of the veins at the neck of the bladder and caused general septicemia. And there can be little doubt that the rigors that occur after internal urethrotomy and after operations upon the kidney, involving the opening of large and deep seated collections of pus are due essentially to the same cause, either the toxic products of the organisms or the organisms themselves being forced into the circulation.

These statements suggest a clear recognition of the dangers of septicemia following *open* operations upon the infected urinary tract.

Review of Recent Literature

Early in the present century appeared definite bacteriological evidence to support the numerous clinical observations of the past that the same complicating septicemia may follow closed instrumental procedures. In 1902 Bertelsmann and Mau⁴ reported three cases of urethral fever in which positive blood cultures In one of these the were obtained. urethra was dilated for stricture; five hours later the patient made an unsuccessful attempt to void and one hour subsequently had a severe chill. Culture of the blood taken during the rigor yielded large numbers of staphylococci and B. coli. A second dilatation was uneventful but a third, two weeks after the first, was followed by another chill twelve hours later and the patient subsequently died of staphylococcal endocarditis. These

TABLE I

	Type of Urological		Imm ediate	Blood Culture
377	1 ype of Ofological	T		
Number	r Infection	Instrumental Procedure	Blood Culture	One Hour Later
1	Unidentified gram neg.			
	bacillus	Cystoscopy and bilateral pyelogram	Negative	Negative
2	Unidentified gram neg.	Cybroboopy and bilarotat pyclogidint	110801110111111111111111111111111111111	110841110
-	bacillus	Retention catheter	Monatina	Negative
3	Trobarichia adi	Dilatation of urethral stricture	Tool printing and	Monetine
4	Tank and in the sale	Diatation of diethral stricture	Escherichia coli	Negative
	Escherichia con	Dilatation of urethral stricture	Negative	Negative
5	Staphylococcus albus	Dilatation of urethral stricture	Negative	Negative
6	Escherichia coli	Cystoscopy and bilateral pyelogram	Negative	Negative
7	Streptococcus viridans	Dilatation of urethral stricture	Negative	Negative
8	Escherichia coli	Dilatation of urethral stricture	Negative	Negative
9	Escherichia coli	Dilatation of urethral stricture	Pseudo aeruginosa.	Pseudo aeruginosa
10	Streptococcus viridans	Dilatation of urethral stricture	Negative	Negative
11	Escherichia coli	Dilatation of urethral stricture	Escherichia coli	Negative
12	Streptococcus viridans	Dilatation of urethral stricture	Negotive	Negative
13	Escherichia coli	Cystoscopy and lavage of renal pelvis.	Magativa	Negative
14	Streptococcus anhemoly-	Cystoscopy and lavage of fenal pervis	Negative	Megative
1.2	ticus	Dilatation of urethral stricture	Monetine	Negative
15	Trobomobio anti	Dilatation of urethral stricture	Negative	Negative
16	Escherichia coli	Dilatation of urethral stricture	Negative	Negative
	Escherichia coli	Dilatation of urethral stricture	Negative	Negative
17	Escherichia coli	Cystoscopy and lavage of renal pelvis	Negative	Negative
18	Escherichia coli	Cystoscopy and pyelogram	Negative	Negative
19	Escherichia coli	Cystoscopy and lavage of renal pelvis	Negative	Negative
20	Escherichia coli	Cystoscopy and lavage of renal pelvis	Negative	Negative
21	Escherichia coli	Dilatation of urethral stricture	Negative	Negative
22	Escherichia coli	Dilatation of urethral stricture	Negative	Negative
23	Escherichia coli	Dilatation of urethral stricture	Negative	Negative
24	Escherichia coli	Cystoscopy and lavage of renal pelvis	Negative	Negative
25	Staphylococcus aureus	Dilatation of urethral stricture	Negative	Negative
26	Staphylococcus albus	Cystoscopy and manipulation of uretral	110440110	Itebanic
		etone	Magativa	Negative
27	Stanhylococcieralbue	stone	Megative	Megative
~.	braphyrococcus arbus	cystoscopy and manipulation of dietral	37am-45	NT
28	Escherichia coli and Staph.	stone	Negative	Negative
20			37	NY
29	Fechariahia aali	Cystoscopy	Negative	Negative
30	Trobogishie asti	Cystoscopy	Negative	Negative
- 30	Decireticina con	Cystoscopy and bilateral pyelogram	Negative	Negative

Tabulation of thirty cases in which blood cultures were taken immediately and one hour after instrumentation of the infected, male urinary tract. Transient bacteriemia occurred in cases 3, 9, and 11, an incidence of ten per cent.

authors expressed the opinion that the bacteria entered the blood stream from traumatized areas in the urethra

A paper by Crabtree in 1916⁵ included reference to seven cases in which positive blood cultures were obtained during the course of vesical drainage through an inlying urethral catheter Thirteen years later appeared the splendid work of Scott⁶ at the Brady Urological Institute in Baltimore He believed that many tem porary blood stream infections escape recognition and instituted routine measures for their detection During a period of two years immediate blood cultures were taken from every patient with a chill or a temperture of 102°Γ or above, positive cultures were obtained in 82 cases In 1932 Hyman and Edelman⁷ reported positive cultures from sixty four patients with disease of the urmary tract during a period of fifteen years at the Mount Sinai Hospital in New The cases from these two series in which the infection of the blood stream followed only closed operative and instrumental procedures have been tabulated (Table II) and will be analyzed in the discussion below To them have been added a similar group from a smaller series reported by Barrington and Wright's and four cases from the author's studies which are herein recorded The first case is an unquestionable example of bicteriemin following instrumentation of the infected urinary tract

Report of Case

M G (History No 8539) The patient, a married womin, iged 45 years, was admitted to The Mary Imogene Bassett Hospital for the second time on June 28th, 1933, because of pun in both flanks and the right costovertebral angle Burning, frequency,

Clart of patent No 8539 slowing relation of postcystoscopic symptoms and fever to positive blood cultures

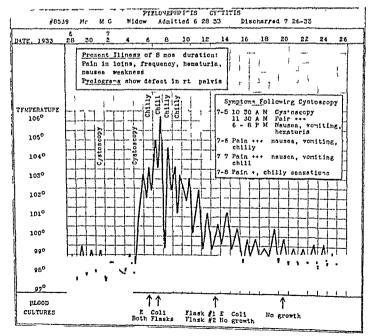


TABLE II

Scott. 2 Carcinoma of bladder Scott. 7 Benign prostatic hypertrophy Scott. 10 Scott. 1		.				, 5
Scott. 1 Pyelitis Colon group Gram positive coccus 1 Cystoscopy Urethra R Colon group Colon group bacillus Colon		hor nber				Probable ?
Pryelitis	Author	And	Urological diagnosis		infection	
Scott 21 Benign prostatic hypertrophy and catheter special suppertrophy and catheter special	Scott		Pyelitis	Colon group	Gram positive coccus	1 Cystoscopy Urethra R
Scott. 7 Benign prostatic hypertrophy can be consulted hypertrophy can be called by the catheter of the hypertrophy can be called by the catheter of the cathe	Scott	2		Colon group bacillus and	Colon group bacillus	
Scott. 10 Neurological bladder (Spriblius) and sterptosoccus of the control of th	Scott	7		Gram + bacillus		
Scott. 12 Benign prostatic hypertrophy corfice Scott. 15 Contracted vesical Scott. 16 Contracted vesical Scott. 17 Carcinoma of Benign prostatic hypertrophy and bacillus Staphylococcus albus Staphylococcus and bacillus Scott. 18 Benign prostatic hypertrophy and bacillus Staphylococcus. 18 Benign prostatic hypertrophy and bacillus Staphylococcus. 19 Benign prostatic hypertrophy and bacillus Staphylococcus. 19 Scott. 21 Benign prostatic hypertrophy and bilateral remai calculations. 21 Staphylococcus Staphylococcus. 22 Staphylococcus Staphylococcus. 23 Benign prostatic hypertrophy and bilateral remai calculations. 24 Scott. 25 Benign prostatic hypertrophy and bilateral propertrophy and bilateral prostatic hypertrophy and scott. 25 Benign prostatic hypertrophy and bilateral prostatic hypertrophy and bilateral prostatic hypertrophy and bilateral prostatic hypertrophy and bilateral prostatic hypertrophy and scott. 26 Benign prostatic hypertrophy and scott. 26 Benign prostatic hypertrophy and scottles are benigned by the prostatic hypertrophy and	Scott	10	Neurological blad-	Gram — bacillus	Colon group bacillus	2 Retention Urethra F
Scott. 15 Contracted vesical orifice concess. Scott. 15 Urethral stricture orifice concess. Scott. 17 Carcinoma of prostatic hypertrophy cand bacillus prostatic hypertrophy calculus. Scott. 21 Benign prostatic hypertrophy and blatteral renal calculus. Scott. 22 Senign prostatic hypertrophy calculus. Scott. 23 Neurological bladder (Gram — bacillus Gram — bacillus. Scott. 24 Senign prostatic hypertrophy and blatteral renal calculus. Scott. 36 Neurological bladder (Gram — bacillus Gram — bacillus Gra	Scott	12	Benign prostatic	Colon group	Colon group bacillus	1 Retained Urethra F
Scott. 15 Urethral stricture Coccus and proposition Propositio	Scott	15	Contracted vesical		Staphylococcus albus	2 Attempted Urethra F punch
Scott. 17 Carcinoma of prostatic hypertrophy and bacillus of scatter prostatic hypertrophy and prostatic catheter prostatic hypertrophy and prostatic hypertrophy and prostatic catheter prostatic hypertrophy and prostatic hypertrophy and prostatic catheter prostatic hypertrophy and prostatic catheter prostatic catheter prostatic hypertrophy and prostatic catheter prostatic catheter prostatic hypertrophy and prostatic catheter prostatic prostatic catheter prostatic pr	Scott	15	Urethral stricture		Gram + coccus	2 Dilatation Urethra F
Scott. 21 Benign prostatic hypertrophy and bacillus Gram — bac	Scott	17			Colon group bacillus	1 Retention Urethra F
Scott. 21 Benign prostatic hypertrophy and bindered by the protection hypertrophy and bindered by the protection hypertrophy and bindered by the protection hypertrophy and bealths of the propertrophy and bealths of the protection hypertrophy bacillus of the protection hypertrophy and bealths of the protection hypertrophy bacillus of the protection hypertrophy of the hypertrophy of the protection hypertrophy of the	Scott	18	Benign prostatic		Streptococcus	3 Retention Urethra F
Scott. 23 Benign prostatic hypertrophy and bilateral renal catheter catheter (Syphilis) (Scott. 25 Neurological bladder (Syphilis) (Scott. 35 Benign prostatic hypertrophy and Scott. 36 Neurological bladder (Syphilis) (Scott. 36 Neurological bladder (Syphilis) (Scott. 37 Neurological bladder (Syphilis) (Scott. 38 Denign prostatic hypertrophy and Scott. 39 Denign prostatic hypertrophy and Scott. 39 Denign prostatic hypertrophy (Scott. 30 Neurological bladder (Scott. 30 Neurological bladder (Syphilis) (Scott. 30 Neurological bladder (Staphylococcus (Staph	Scott	21		${\bf Gram -\!$	Gram — bacillus	
Scott. 24 Spina bifida Neurological bladder Scott. 25 Neurological bladder Scott. 26 Neurological bladder Scott. 36 Neurological bladder Scott. 36 Neurological bladder Scott. 36 Neurological bladder Scott. 36 Neurological bladder Scott. 37 Neurological bladder Scott. 38 Neurological bladder Scott. 39 Scott. 39 Scott. 39 Scott. 39 Scott. 39 Scott. 39 Scott. 30 Scot	Scott	23	Benign prostatic hypertrophy and bilateral renal	Staphylococcus	Staphylococcus	
Scott. 25 Neurological bladder (Sphilis) Scott. 35 Benign prostatic hypertrophy and Edelman Hyman and Edelman Hyman and Edelman Hyman and Hyman and Hyman and Edelman Hyman and Edelman Hyman and Hyman and Edelman Hyman and Edelman Hyman and Hyman and Edelman Hyman and Edelma	Scott	24	Spina bifida Neurological		Staphylococcus	2 200001101011
Scott. 35 Benign prostatic hypertrophy Gram + coccus Gram - bacillus Gram - bacillus Poccus Gram + coccus Gram - bacillus Poccus Gram + coccus Gram - bacillus Poccus Gram - bacillus Gram - bacillus Gram - bacillus Gram - bacillus Poccus Gram - bacillus Poccus Gram - bacillus Poccus Gram - bacillus Poccus Gram - bacillus Poccus Gram - bacillus Gram - bacillus Poccus Gram - bacillus Gram - bacillus Poccus Gram - bacillus Poccus Gram - bacillus Poccus Gram - bacillus Poccus Gram - bacillus Gram - bacillus Poccus Gram -	Scott	25	Neurological bladder	Gram — bacillus	Gram + coccus	0 210101111111
Scott. 36 Neurological bladder (Post encephalitis) Gram — bacillus Gram — bacillus Colon group bacillus. 1 Cystoscopy Urethra R Post Colon group bacillus Colon group Colon gr	Scott	35	Benign prostatic	bacillus	Gram — bacillus	1 Catheter- Prostatic B
Scott. 39 Benign prostatic hypertrophy and vesical calculi Scott. 47 Nephrolithiasis Gram — bacillus Cocous and Bedelman Hyman and Edelman Edelman Hyman and Edelman Hyman Edelman H	Scott	36		Gram + coccus	Gram + coccus	1 Cystoscopy ?
Scott. 47 Nephrolithiasis. Gram — bacillus Drethral stricture. Gram — bacillus Bacillus proteus. 1 Dilatation of stricture Cystoscopy Urethra Drethral stricture Coccus and Scott. 52 Beniga prostatic Appertrophy Scott. 54 Beniga prostatic Appertrophy Decillus Deniga prostatic Appertrophy Dacillus Deniga prostatic Culus Colon group Dacillus Drethra Drethra Catheter	Scott	39	Benign prostatic hypertrophy and	Gram — bacillus	Colon group bacillus	1 Cystoscopy Urethra R
Scott	Scott	47	Nephrolithiasis	Gram — bacillus		1 Dittettands
Scott	Scott	46	Benign prostatic	Coccus and		
Scott	Scott	52	Carcinoma of pros-	Bacillus pyo-	Bacillus pyocyaneous	1 Iteleticies Comment
Scott 58 Left ureteral calculus Scott 60 Benign prostatic hypertrophy colon group bacillus Scott 61 Carcinoma of prostate Vesical diverticular Scott 66 Carcinoma of bladder Scott 66 Carcinoma of bladder Scott 67 Urethral stricture and hydrocele Scott 70 Benign prostatic hypertrophy Scott 77 Scott 75 Benign prostatic hypertrophy Scott 79 Benign prostatic hypertrophy Scott 79 Benign prostatic hypertrophy Scott 82 Carcinoma of Scott 82 Carcinoma of Scott 82 Carcinoma of Scott 83 Edelman Hyman and Ede	Scott	54	Benign prostatic	Colon group	Colon group bacillus	2 Retention Urethra F
Scott	Scott	58	Left ureteral cal-	Gram + coccus		2 Cystoscopy Urethra F Ureteral
Scott	Scott	60		Colon group	Colon group bacillus	1 Retention Urethra F
Scott	Scott	61	tate		Bacillus pyocyaneous	2 210101121011
Scott	Scott	66	Carcinoma of bladder	Gram — bacillus	Gram — bacillus	1 Cystoscopy ? F
Scott	Scott	67	Urethral stricture	None	Gram colon bacillus	1 21111111111
Scott 75 Bengan prostatic hypertrophy and spermatocele. Scott 79 Bengan prostatic hypertrophy and spermatocele. Benign prostatic hypertrophy Carcinoma of bacillus Scott 82 Carcinoma of Colon group bacillus Co	Scott	70	Benign prostatic		Colon group bacillus	1 Retention ? R
Scott 79 Benign prostatic hypertrophy Carcinoma of bladder Hyman and Edelman Hyman Edelman Hyman Edelman Hyman and Edelman Hyman	Scott	75	Benign prostatic hypertrophy and	Colon group	Colon group bacillus	
Scott 82 Carcinoma of bladder Bilateral renal calculi Pyelonephritis Hyman and Edelman Hyman Edelman Hyman and Ede	Scott	79	Benign prostatic		Colon group bacillus	1 Cystoscopy Urethra R
Hyman and Edelman Hyman and Edelman Hyman and E	Scott	82	Carcinoma of		Colon group bacillus	
Hyman and Edelman Hyman and Ed		4	Bilateral renal cal- culi	Not stated	Staphylococcus aureus	
Edelman Hyman and Edelman Edelma	Hyman and	я	Uremia	Not stated	Bacillus pyocyaneous	1 Cystoscopy Urethra R
Edelman Hyman and Edelman Hyman and Edelman Hyman and Edelman Hyman and Edelman Edelman Hyman and Edelman Edelman Hyman and Edelman Edelman Edelma	Edelman					
Edelman Hyman and 20 Contracted neck of B. Coli Com- B. Coli Communis 1 Cystoscopy Kidney D* Edelman Diverticulum Bilateral pyelo- nephritis	Edelman					ization
Edelman bladder munis Diverticulum Bilateral pyelo- nephritis	Edelman					of stricture
The state of the s		. 20	bladder Diverticulum Bilateral pyelo-		D. Con Communis	i Cystoscopy Muney D
				(Table continu	ed on next page)	

TABLE II (Continued)

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,	_				94	2		
, to	итбет				tire dire	š	Probable	311/1
Author ~	Nan N	Urological diagnosis	Type of urinary infection	Type of blood stream	220	Instrumental procedure	fortal of entry	8
	35	Adenoma of prostate Retention of unine		Staphylococcus aureus	1	Attempted Catheter ization of	Jrethra	p
	1	Urethral stricture	Not stated	B Coli Communis	1	bladder Dilatation V of stricture	Urethra	R
Edelman Hyman and Edelman	43	Py elonephritis	Not stated	B Coli Communis	1	Cystoscopy 1 and pyelo-	Kidney	D
Hyman and	53	Multiple cortical	Not stated	B Coli Communis	1	Gram Cystoscopy	Kidney	R
Edelman Hyman and Edelman	54	abscesses of kidney Renal calculus	B Coli Com-	B Coli Communis	1	ization of	Urethra	R
	59	Urethral calculus	Not stated	Gram — bacıllus	1	ization of	Urethra	R
Barrangton and Wright	1	Urethral stricture	Not examined	Bacillus coli	2	bladder Dilatation following external	Urethra	R
Barrington and Wright	2	Urethral stricture	Bacillus coli	Bacillus coli	1	urethrotomy Dilatation following internal	Urethra	R
Barrington and Wright	3	Urethral stricture	Bacillus coli	Bacillus coli	1	urethrotomy Dilatation following internal	Urethra	R
Barnngton and Wright	7	Urethral stricture	Not stated	Staphy lococcus aureus	1	urethrotom Dilatation after external	y Urethra	R
Barrington and Wright	8a	Urethral stricture	Bacillus Proteus	Bacillus Proteus	2	nirethrotomy Dilatation after external	Urethra	R
Barrangton and Wright	10	Urethral stricture Perineal sinuses	Bacillus pyo- cyaneous	Bacillus pyocyaneous	1	urethrotom Dilatation siter internal	Urethra	R
Barrington and Wright	12	Urethral stricture	Bacıllus Proteus	Bacillus Proteus	1	urethrotom Dilatation after external	y Urethra	R
Barnagton and Wright	14	Urethral stricture	Bacillus Proteus	Bacillus Proteus	1	urethrotom Dilatation of stricture	Urethra	R
Barrington	15a	Urethral stricture		Hemolytic bacillus coli	. 1	Dilatation	Urethra	R
and Wright Barrington	15b	Urethral stricture	lus coli Not stated	Hemolytic bacillus coli	1	of stricture Dilatation	Urethra	R
and Wright Powers	1	Chronic pyelitis and cystitis	Escherichia coli	Escherichia coli	3	and bilateral	Right renal pelvis	R
Powers	2	Urethral stricture	Escherichia coli	Escherichia coli	1	Dilatation	Urethra	R
Powers	3	Urethral stricture	Escherichia coli	Escherichia coli	1	of stricture Dilatation	Urethra	R
Powers	4	Urethral stricture	Escherichia coli	Pseudomonas aeru- ginosa	2	of stricture Dilatation of stricture	Urethra	R

Group of fifty four cases of bacteriemia following closed operative manipulation of the infected urinary tract "Death was due to a later operative procedure and not to septicemia. The mortality rate in the other fifty two cases was 115 per cent.

nocturia, and suprapublic discomfort were distressing, hematuria occurred once Physical examination revealed tenderness in both flanks, both costovertebral angles, in the suprapubic region, and along the urethra

The temperature, pulse rate, and respiratory rate were normal A specimen of urine obtained by catheter was slightly cloudy, acid in reaction, had a specific gravity of 1011, and contained a very slight trace of albumin Microscopic examination of the centrifuged sediment showed tenforty single and clumped pus cells per high power field No acid fast organisms were

found Culture yielded Escherichia coli There was no anemia or leukocytosis The Wassermann reaction was negative The renal function by the phenoisulphonphthalein method was seventy-five per cent and the nonprotein nitrogen of the blood was twenty-four mg per one hundred cc Cystoscopic examination was performed

on the third day after admission. No reaction occurred and the examination was repeated four days later. The cystoscope was introduced without difficulty and with no undue trauma. The trigone was red and granular in appearance but elsewhere the

vesical mucosa was normal. Catheters were passed up to each kidney and separate urinary samples were collected. The urine from the right side was brown and turbid; the left, clear and straw-colored. Escherichia coli was obtained from both specimens and from the bladder; no acid fast organisms were seen, and postmortem examination of inoculated guinea pigs subsequently revealed no tuberculosis.

A pyelogram was taken after the injection of seven c.c. of ten per cent sodium iodide through the catheter in the right ureter. The patient complained of some pain in the flank after six c.c. had been introduced into the pelvis of the kidney and the last cubic centimeter was injected slowly into the ureter as the catheter was withdrawn. The procedure was repeated on the left side but in this instance the pain was located in the lower abdominal quadrant. The deformity of the right upper major calyx was essentially the same as when first noted five months previously. There was no definite abnormality of the left pelvis. No extravasation of sodium iodide into the substance of either

kidney was apparent.

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The second postcystoscopic period was exceedingly stormy. The patient complained of severe pain in the back, was nauseated, and vomited during the evening. The temperature rose to 101°F. at 8 P.M. to 103.2°F. at 4 the next morning (see Chart) and continued upward within the next thirty-six hours to a peak of 106.2° during a chill in the evening of the second day. The leukocytic count was elevated. Nausea and vomiting persisted; abdominal pain, tenderness, and spasm were present, most marked in the right flank and costovertebral angle. Blood cultures were positive for Escherichia coli twenty-four hours after cystoscopy, again the following evening one and one-half hours after the chill, and again six days later. The number of pus cells in the urine was increased for several days and red cells were present for seventytwo hours after cystoscopy. The symptoms gradually disappeared and the temperature subsided by lysis to normal on the eleventh day.

Comment. This patient developed bacteriemia due to Escherichia coli subsequent to cystoscopy and retrograde pyelography. In view of the early onset of pain in the right flank and costovertebral angle, and the later localization of tenderness and spasm in this region, the most probable portal of entry was the right renal pelvis. One may only surmise whether the predisposing factor was due to overdistention of the pelvis with pyelo-

graphic fluid or to acute exacerbation of a chronic pyelitis due to irritation of the inflamed epithelium by injection of a foreign medium. At any rate, this case represents a definite type of postinstrumental complication in urological practice, the frequency and dangers of which are often minimized or unrecognized.

Clinical Studies

In view of the interest aroused by this case a clinical investigation was carried out with a group of male patients on the urological service of the Mary Imogene Bassett Hospital, to obtain some information regarding the frequency of postinstrumental bacteriemia and to determine if transient bacteriemia may occur without clinical evidence of generalized sepsis. Chronic infection of the urinary tract, proved by the culture of bacteria from a catheterized specimen of urine, was present in every instance. No cases were included in which open operations were performed or in which prostatic or periurethral abscesses were present. Instrumentation of the urethra was either the major purpose of the operation or an incidental necessity.

A clean specimen of urine Method.was obtained by catheter, or through the cystoscope, for culture. Immediately after the instrumental procedure had been completed, and before the patient was removed from the cystoscopic table, the skin on the flexor surface of the elbow was cleansed with alcohol, a tourniquet was applied, and ten c.c. of blood were withdrawn from a vein in the cubital fossa. Five c.c. were deposited in each of two flasks containing beef infusion broth and incubated at 37° C. for ten days. Blood was withdrawn again one hour later and two more flasks were inoculated. When a positive result was obtained, subcultures were made and the organism was

identified.

These studies were carried out after thirty closed operative manipulations in the presence of urinary infection.

Results. The urological diagnosis, type of urinary infection, the instrumental procedure, and the cultural results are tabulated in Table I. Immediate positive cultures of Escherichia coli in one flask only were obtained in two cases after dilatation of an urethral stricture and both

the immediate and later cultures were positive for Pseudomonas aeruginosa in a third case, an incidence of ten per cent It is quite within the realm of possibility that these positive results were all due to contamination. Escherichia coli is not a frequent contaminant, however, and while pyocyaneous is, its presence in both the immediate and late cultures is rather against this presumption

Consequently the author feels that, although the series of observations is small, the results suggest that (1) transient, usually unrecognized, invasion of the blood stream may occur after instrumentation of the infected urinary tract. (2) the invading organism may be that which is responsible for the urinary infection, and (3) the portal of entry is probably through minute abrasions in the

urethral mucosa

Furthermore the case reported in detail above offers definite evidence that a more prolonged and serious bacteriemia may occur following retrograde pyelography in the presence of chronic pyclitis

Discussion

For the purpose of studying a larger group of cases than has come within the personal experience of the author those cases have been selected from the reports of Scott,8 Hyman and Edelman7 and Barrington and Wright^a in which infection of the blood stream followed only closed operative and instrumental procedures These, with the four recorded above, make a total number of fifty-four cases (Table II). They have been classified according to the urological diagnosis (Table III), the instrumental procedure

Urological Diagnosis	Num- ber	Per cent
7.1 1 4	18 14 4	33 3 25 9 7 4
	18 14 3 3 2 2 2	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	2 1 1	
	1	1 8 1 8 1 8 1 8
Total		99 5

Fifty four cases classified according to the urolological diagnosis. Urethral structure and benign prostatic hyper-trophy comprise 59 2 per cent

(Table IV), the probable portal of entry (Table V), and the type of organisms isolated from the blood (Table VI), and from the urine (Table VII). Analysis of these tables discloses a few outstanding facts:

1. Stricture of the urethra and benign hypertrophy of the prostate were the major urological diagnoses in 592 per cent of the cases (Table III.)

TABLE IV

Instrumental Procedure	Num- ber	Per cent
n: · ·	18 13	33 3 24 1
	13	24 1
	6 2	11 1
	ĩ	18
		1 8
Total	54	99 9

Classification according to the instrumental procedure Dilatation of urethral strictures cystoscopies and the use of retention catheters were responsible for 815 per cent of the bacteraemias

TABLE V

1	Probable Portal of Entry	Num ber	Per cent
33 r415 m		45	83 3
		4	74
		1	1.8
		4	7 4
Total		54	99 g

The urethra was regarded as the probable portal of entry in 83 3 per cent of the cases

TABLE VI

	Type of Blood Stream Infection	Num- ber	Per
~ ,		27	50
		7	12 9
		5	9 3
		4	7 4
		2	3 7
		1	18
		4	7 4
		4	74
- 7	l'otal	54	99 <i>9</i>

Analysis according to the type of bacteremia.

Time SITT

TABLE VII		
Type of Urinary infection	Num ber	Per cent
	17 16	25 23 5
	12 11	17 6 16 2
•	3 3 3 2	4 4
	3 2 1	4 4 2 7 1 5
Total		-

- 2. Dilatation of an urethral stricture, cystoscopic examination, and the use of a retention catheter were responsible for 81.5 per cent of the bacteriemias (Table IV.)
- 3. The urethra was regarded as the probable portal of entry in 83.3 per cent of the cases (Table V.)
- 4. Organisms of the Escherichia group were isolated from the blood stream in fifty per cent of the cases and staphylococci or unidentified cocci in 20.3 per cent (Table VI.)
- 5. Escherichia coli or unidentified bacilli were responsible for 48.5 per cent of the urinary infections and staphylococci or unidentified cocci for 20.6 per cent (Table VII.)

It is probable from the author's clinical studies recorded above, as well as the work of Barrington and Wright, that organisms may be detected in the peripheral blood very soon after instrumentation of the infected urinary tract. Furthermore these organisms soon disappear unless a permanent focus of infection be present to act as a constant source of supply, a fact which suggests that cultural examination of the blood should be made within a few minutes following the operative procedure in order to yield positive The fact that positive cultures may be obtained so soon after instrumentation presupposes invasion by the direct route rather than by the more circuitous lymphatic channels. Such a transient bacteriemia presumably occurred in ten per cent of the author's small series of thirty cases studied and in a higher percentage of Barrington's group. Subjective and objective constitutional symptoms may be absent. Barrington and Wright have also demonstrated a fact which has been recognized clinically for many years, that similar invasion of greater severity may take place during the first natural micturition following urethral instrumentation. Fever and rigors do not necessarily occur with such bacteriemias but appear to depend on the number of invading organisms.8 It is probable that the rigor,

when present, is due to destruction of the organisms and release of their toxins rather than to their primary dissemination in the circulating blood.

As the source of invasion is the infected urinary tract traumatized by instrumentation and the probability of invasion is directly proportional to the amount of trauma inflicted, one may conclude with reason and reiterate with emphasis that gentleness and caution are of the utmost importance in instrumentation of the infected urinary tract.

Summary

- 1. A case of bacteriemia following cystoscopy and retrograde pyelography has been described in detail.
- 2. The early conceptions of "catheter fever" have been presented briefly.
- 3. The method employed in the study of thirty cases in which closed operative manipulation of the infected urinary tract was carried out at the Mary Imogene Bassett Hospital, has been described and the results have been tabulated. Positive cultures were obtained three times, an incidence of ten per cent.

Fifty cases of bacteriemia following instrumentation have been collected from the recent literature. These with the four recorded by the author, have been classified and analyzed according to the urological diagnosis, the instrumental procedure, the portal of entry, the type of blood stream infection, and the type of urinary infection.

It has been concluded that transient or temporary bacteriemia is not rare, that it is often not followed by generalized symptoms of sepsis, that infected urine and urinary passages are the source of the invasion, that instrumentation is the precipitating cause, that the probability of invasion is directly proportional to the amount of trauma inflicted, and that gentleness and caution are of the utmost importance in preventing the occurrence of such postinstrumental bacteriemia.

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Discussion

Dr. James H. Borrell, Buffalo-I wish to congratulate Dr. Powers on his very excellent paper, which again calls to our attention the bacteriological findings on a much discussed subject and one that has always been accepted as one of the hazards of the instrumentation of the uninary tract.

My personal experience has been that frequently, individuals with apparently noninfected urinary tracts, have more stormy postinstrumental courses than those patients with obviously infected tracts. The probable answer to this is that the infected patient has established an immunity, or some sort of a defense mechanism. It is usually conceded that urethral chills are probably due to a pyelonephritis, with or without an ac-companying bacteriemia. The condition is, in all probability, brought about by extension of the infection along the lymphatic channels accompanying the ureters or by direct reflux from the bladder. I have had no personal experience with the bacteriological findings in these cases except the usual routine laboratory procedures.

I should like to emphasize particularly Dr. Powers' conclusion, "That gentleness and caution are of the utmost importance in preventing postinstrumental complications."
It would seem fitting at this time to make

a few suggestions regarding the treatment of patients about to be cystoscoped. Very few cystoscopic examinations are emergency cases, and I feel that pre-cystoscopic attention to the gastrointestinal tract, a preliminary urinary antiseptic for one or two days, and a careful search for other foci are important. Frequently, in cases where retrograde cystoscopy does not seem advisable, much and sometimes sufficient information may be obtained from intravenous urography. A sedative, not necessarily morphine, given one hour before cystoscopic examination aids materially with apprehensive patients; and the use of a local anesthetic, such as diothane, cocaine or novocaine, tends to remove the natural resistance of the patient and thus lessens the chance for trauma.

In an obviously badly infected kidney, the use of an inlying ureteral catheter for twenty-four to forty-eight hours frequently prevents post-cystoscopic mishaps. I would advise caution against the continued use of inlying urethral catheters in those individuals who obviously do not tolerate them, as evidenced by the prompt appearance of urethritis and lymphadenitis.

We all exercise every care in doing pyelograms and I have personally always felt that, when the x-ray man could visibly demonstrate pyelo-venous backflow or pylelotubular back flow or extravasation or pyelographic spill or whatever you choose to call it, we were inviting complications.

I recently selected ten cases in which there was some evidence of pyelographic extravasation, but curiously enough, none of these patients showed any unusual post-cystoscopic complications. The highest temperature was 100 2° F, and that in only one case: most of the others not showing any febrile disturbance.

In conclusion, we must remember, however, that, as in all infections, the factor of individual resistance, the susceptibility of the patient, and the pathogenicity and number of organisms liberated probably govern to a large extent what the postcystoscopic course will be.

COMPENSATION LAW GETTING INTO ITS STRIDE

State Industrial Commissioner Elmer F. Andrews has served notice on all employers who are self-insurers that they must post notices informing their employees that they have free choice of physician in case of injury.

Due to the amendment of the Workmen's Compensation Law permitting injured workmen a free choice of attending physician, selected from panels of qualified physicians, a new unit, known as the Medical Registration Unit, was established. Through this Unit authorization to practice in compensation cases has been issued to approximately 8,000 physicians in the New York City District; 1,500 in the Albany District, and approximately 1,200 each in the Buffalo, Rochester and Syracuse Districts; a total of 13,253 physicians, according to incomplete figures.

As a result of investigations by the Division, the Attorney General's office has secured convictions against over 400 employers who sought by subterfuge to avoid compliance with various provisions of the Workmen's Compensation Law,

Victor Hugo said: "The misery of a child is interesting to a mother; the misery of a young man is interesting to a woman; the misery of an old man is interesting to nobody." Except-he might have added-the doctor.

ACUTE APPENDICITIS IN INFANTS AND CHILDREN UNDER FIVE YEARS OF AGE

JAMES HARRY HEYL, M.D., New York City

So much has been written on acute appendicitis and so many statistics compiled that one hesitates to add a small series. In recent years attention has been drawn to the increasing mortality, in the United States and elsewhere, by Willis, E. L. Eliason,⁵ Thomas Ryan,¹³ and many others. Opinion in general attributes this increase largely to the surgeon.

Eliason writes:

Probably the fact that appendicitis is no longer, generally speaking, considered a major surgical condition, and today is undertaken by hundreds of inexperienced operators as lightly as they undertake an amputation or a herniorrhaphy, accounts for some of the increase. Credence is to be given to this idea because, although the country wide mortality at the hands of the vastly increased number of inexperienced surgeons is higher, yet at the same time that of the big clinics and experienced men has decreased.

There is probably another cause for this increase, especially among infants. Ryan has shown that in Philadelphia in 1928 the mortality rate in patients between two and five years of age was eighty-one per cent higher than in 1923; five and ten years of age, forty-seven per cent higher; ten to fifteen years the same, and over fifteen years eighteen per cent lower, while during the later period the total rate for all was a little lower. Such conflicting figures require interpretation. Is it not reasonable to assume in the face of a lowering of the mortality in the group as a whole, that some other factor than the surgical treatment must account for the rise in the mortality in the younger age groups? As the surgical treatment is not essentially different for the different ages, is it not fair to believe that the increased mortality is due to the increased incidence resulting from more frequent recognition? It has been suggested that modern diets in infancy may increase the incidence of appendicitis. Inasmuch as these diets cause an increase in pathogenic bacteria of the colon type, there are grounds for this supposition.

It has been shown emphatically that in

the two extremes of life acute appendicitis is a much more serious disease than in the intervening years and the diagnosis more difficult. We will limit the discussion only to the group under five years of age.

The cases reported by Abt in Table I were largely culled from the literature and represent the largest series that we have found under two years of age. The earliest case in the series occurred in 1847 and many of the others before the pathology was generally understood. Twenty of his collected cases were under three months of age showing clearly that acute appendicitis must be considered a possibility from birth onward. Over one-fourth of his cases were diagnosed at autopsy.¹

Beekman's cases are of particular interest because of the excellent follow up, 126 of a total of 146 cases. All of his cases (21) under six years of age had perforated, and sixty-seven per cent of the entire series. He found the disease twice as common in males as females and the mortality twice as great in females. Herniae followed operation in sixteen cases or 12.7 per cent.²

cases, or 12.7 per cent.²

There are many factors which are responsible for the high mortality in the earliest age group. The most important factors, namely the duration of the disease before medical aid is sought and treatment with cathartics, are common to all ages and do not require further comment. The causes more peculiarly associated with infants are the increased difficulty in

TABLE I. REPORTED MORTALITY IN ACUTE APPENDICITIS IN CHILDREN

Name	Age Under	ber of	Drain-	Deaths	Mortality %
wame	Unaer	cases	%	Deains	
Abt	2	80	••••	• • • • •	50 collected statistics
Beekman	13	145	67		7.58
Beekman	- 5	17	100	6	35
Bolling	Ğ	42	90	Š	19
Bolling	6-1		60	2	2.5
Eliason	5	17	94.1	- -	17.6
Garlock	10	107			8.4
Helmholz	5	15		7	47
Keyes	õ	122		15	12.29
Keyes	9 5	23		7	30.43
Maes et al	13	250	73		7.6
Maes et al	-ŏ	22	77.3	5	22.7
Peterson	ŏ	62		6	9.69

diagnosis which Bolling well states is inversely proportional to the age, the relatively short duration between onset symptoms and rupture, and the comparatively feeble defense of the child's

peritoneum 3

The present study is based on ninety unselected consecutive cases of authenticated acute appendicitis, under five years of age, eighty-five at St. Mary's Hospital for Children in the past twelve years, and five at the Beekman Street Hospital in the past six years, operated on by their surgical staffs. All cases in which the pathological examination was questionable have been excluded

Occurrence

As would be expected the frequency of the disease in our series rises proportionally with the age, the increase being sharpest in the first three years and thereafter approaches more and more gradually its maximum incidence from the fifteenth to the thirtieth year

TABLE II

	Cases	Per cent Cases	Deaths	Mortal ty
Male	59	65 5	7	11 86
Female	31	34 5		12 91

Sev In our series as in most others the disease was more common in the males, approximately two thirds occurring in that sex. Unlike many others the mortality in the two seves was practically the same (Table II) Most commentators have found the mortality higher among females. We are not aware of any explanation for this discrepancy. Maes' figures showed 148 males to 102 females, with a female mortality 88 per cent, to 67 per cent in the males.

History We must depend on the observation of the parents for the earliest symptoms. They frequently delay calling a physician because of the frequency of vonting, abdominal pain, and fever as reactions out of all proportion to stimuli of improper feeding and the toxins of other diseases. In this series, pain and vomiting were the outstanding symptoms. Pain was the first symptom noticed in two thirds of the cases. The others noted in order of their frequency were anoresia, apathy, fever, lameness, constipation, diarrhea,

and abdominal injury. The most prominent symptoms on admission were pain and vomiting followed in order by fever, anorexia, diarrhea, apathy, dysuria, lameness, convulsion, constipition, flexion of thighs, and irritability. Attention should be called to diarrhea, not because of its frequency, but because it does not fit in with the picture of the pathology. In 8 cases it was a prominent symptom, 3 had spreading peritonitis, 2 localized and spreading peritonitis, and one localized peritonitis, and 2 unruptured acute appendictits.

Previous attacks were mentioned in 6 cases, or 647 per cent. In only 2 was there more than one previous attack. One of the latter had had 5 previous attacks, and this was the only one of the 6 that required drainage. The occurrence of previous attacks was much more common in cases of subacute, chronic, and questionable pathology, but serious pathology may fol-

low previous attacks

Bolling³ found twelve per cent of his cases gave a history of previous attacks and he emphasized the fact that only the worst cases are recognized and reach the surgeon Maes¹⁰ found a history of previous attacks in 228 per cent of his series.

Catharsis Forty one cases received cathartics, often repeated, and often of a drastic nature, 9 did not. In the other 40 it was not mentioned in the histories It seems safe to assume that the great majority of these cases were so treated The only effective remedy to this situation is an attack on the cathartic habit. per se As long as the general public consider cathartics as a sovereign remedy for all the ills to which the flesh is heir, just so long will these cases continue to receive such treatment at home, before a doctor is called Such an attack seems an excellent idea, but it is questionable whether there is sufficient uniformity of opinion among doctors to permit effective propaganda against this ancient and quaint

Physical Examination The successful evaluation of the objective symptoms require of the examiner much patience, close observation, gentleness, and tact Much can be learned without handling the putient, as to the type of breathing, whether abdominal or thoracic, whether

the thighs are flexed on the abdomen, whether the child is suffering acute pain, whether apathetic or nervous, whether the abdomen is distended and whether he resents extension of the thighs, especially the right. Abdominal tenderness is often best shown by the attempt of the child to remove the examiner's hand when light palpation of the abdomen is attempted. The classical signs of localized tenderness and particularly rigidity may be entirely lacking especially in infancy. A rectal examination should always be made, and may be of great value in arriving at a diagnosis.

Fortunately the disease is relatively uncommon in the first or second year, one and 8 cases, respectively, in this series. Every one of those 9 cases required drainage. It is also significant that the youngest case of 11 months was observed on the ward of the hospital for 5 days before an exploration was carried out, and then considerable doubt was entertained as to the preoperative diagnosis. It is probable that most cases occurring in the first year and many in the second year recover or die without the correct diagnosis ever having been suspected. Abt has illustrated this conclusively in his series, over one-fourth of the 80 cases being diagnosed at autopsy, or half of the fatal cases.

Temperature. Temperature on admission varied from 99° to 106.4° F. by rectum, the average being 101.7°. The highest temperature was a case that entered the hospital in a moribund condition and died in three hours in spite of supportive treatment and on which no operation was attempted.

Leukocytosis. Blood counts were recorded in seventy-nine of the cases, varying from 6,000 to 44,300, with an average of 19,000. The percentage of polymorphonuclear leukocytes spread between thirty-nine per cent and ninety-six per cent, the average being seventy-nine per cent. The lowest count of 6,000 and seventy-five per cent polys was the only striking illustration of lowered resistance and a poor prognosis. It was a case of general peritonitis which died on the third postoperative day. The average of the ten fatal cases in which it was recorded was 14,580 and seventy-four per cent polys. The blood count is not of great value either in diagnosis or in prognosis.

The elimination of "a" and "b" from Table III which may be attributed to technical errors, gives the revised mortality statistics, which gives a truer picture of the mortality based on duration of symptoms.

The elimination of "c" gives a total operative mortality of 11.1 per cent.

The shortest duration of symptoms was one hour. On operation that case showed an appendicitis with an abscess which might be considered in the nature of a rebuttal. It is significant, however, that forty-four per cent of the nine cases of less than twenty-four hours' duration required drainage, seventy-five per cent between the first and second day, eighty per cent between the second and third day, 81.3 per cent between the third and fourth days, and one hundred per cent between the fourth and fifth days.

Only one-tenth of the cases were admitted during the first twenty-four hours and one-third in four or more days after the onset symptoms. The longest duration of symptoms was fourteen days. This child had a localized abscess and his only complaint was lameness. That the

TABLE III. DURATION OF SYMPTOMS WITH PATHOLOGY AND MORTALITY

Days since onset	Acute appendicitis unruptured	A cule appendicitis with local perilonitis	Acute appendicitis with spreading peritonitis	Total	Per cent requiring drainage	Deaths	Per cent mortality	Per cent mortality revised
0-1	5	1	3	9	44 .	0	0	0
1-2	5	7	8	20	75	2a	10	5
2-3	3	4	8	15	80	4bc	26.6	20
3-4		8	5	16	81.3	4	25	25
4-5	0	2	5	7	100	Õ	Ö	ō
5-6	2	5	1	8	7.5	Ō	Ď	Õ
6-7	0	2	ī	3	100	ĭ	33.3	33.3
7+	2	6	4	12	83.3	ò	0.0	Ö
Total	20	35	35	90		11	12,2	11.1

⁽a) One case of unruptured acute appendicitis. Death followed secondary operation for pelvic abscess. (b) One case of unruptured acute appendicitis. Death followed secondary operation for general peritonitis. (c) One case of general peritonitis. Died three hours after admission without operation.

promptness with which operation is instituted after the onset of symptoms is by all odds the most important factor in preventing complications and lowering the mortality of appendicitis, has been recognized and re emphasized from the days of McBurney and J B Murphy to the present time

In this series as in most others, the general public is the worst offender, although the family physician is not entirely blumeless. It certainly speaks badly for the influence and publicity of organized medicine and public health agencies that competent medical aid is not sought more promptly and frequently.

We were surprised to find that nearly a guarter of the cases gave a history of respiratory infection. Only 2 cases of post operative pneumonia occurred and neither of these give any evidence of preoperative respiratory infection. While we are aware that others (Westermann) have some evidence to support a relationship in some cases between respiratory infection and acute appendicitis, we have no evidence in this series other than the high incidence of respiratory infection. This supports the belief that respiratory infection does not justify delaying operation in the presence of acute appendicitis It seems likely that many cases reported as acute appendicitis with general peritonitis are true streptococcus or pneumococcus peri tonitis which are frequently secondary to respiratory infections

Differential Diagnosis It would be in teresting and valuable to record all the mistaken diagnosis in which cases were operated on for acute appendicitis and other conditions found The filing of our hospital records makes that an almost in superable task and one has to full buck on personal experience and records of others Right lower lobe pneumonia is probably the most frequent cause of such errors Streptococcus and pnemococcus periton itis and mesenteric lymphadenitis cannot always be differentiated Paracentesis has real value in the peritonitis cases. Among the more bizarre errors in my experience are pericarditis typhoid fever, scarlet fever, early Potts disease (upper lumbar), a congenital cyst of the cecum in an in fant, and acute rheumatic fever, all of this group recovered in spite of the appen dectomy Pyelitis gastroenteritis, and in

tussusception are occasionally mistaken for acute appendicitis and must be borne in mind. By and large in the first two years of life, we believe the failure to recognize acute appendicitis is more common than the reverse, and certainly more disastrous in its consequences to the patient. Abdominal pain, vomiting, and fever lusting 24 hours or more in the absence of other demonstrable pathology justify exploration for appendicitis.

Operative Treatment Except for the case that was obviously moribund on admission operation was performed as soon as the diagnosis was suspected and irre spective of the stage of the disease Except in doubtful cases we prefer the McBurney incision. In this series two thirds of the incisions were of this nature, the remainder being rectus incisions largely muscle splitting, and only occasionally a Kummerer We can see little to recommend the so called Ochsner treatment, at least in young children. As the reasons for this belief rest on the pathology, its discussion might better be left to the discussion of that topic Only one case in this series remained in the hospital over 24 hours before operation that showed an abscess or general peritonitis. That case has been mentioned above and resulted in a mortality on the fourth day postoperatively Young children are very susceptible to dehydration and acidosis as a result of vomiting or diarrhea

For this reason especially, operative procedure should be simple and expeditious and anesthesia shortened Where an abscess is present, care should be taken to avoid breaking down adhesions and spreading the infection. When the child is toxic or the removal of the appendix difficult and prolonged it is far better to simply drain the abscess or the appendix region In 7 of these cases the appendix was deliberately left, and there were no mortalities in this group. One or two of the fatilities might have been avoided in this series had this procedure been followed It seems advisable to do a late appendectomy on these cases as there are records of severe recurrent attacks

Inversion is of doubtful value in any case, and not entirely without danger Where rupture has occurred it adds a few minutes to the operation, and simple ligation is preferred except in undrained

cases. Care should be taken to ligate flush to the cecum to prevent later infection of the stump (Cutler⁴). Where no abscess wall or sloughing tissues are left, and the cecum about the stump is not gangrenous no value is seen in draining the peritoneum in general peritonitis theoretically. In practice, however, we do not have the courage of our convictions and drain unless the child's general condition is good, feeling that the chief drawback to drainage is the loss of fluids which are easily replaced.

In accordance with Truesdell's¹⁴ idea we have discontinued draining the pelvis unless there is an abscess present in the pelvis with the feeling that an abscess is more likely to develop about a drain than if left undrained. Rolled rubber dam drains were employed in most cases and to this is attributed the avoidance of fecal fistulae in this series.

In drained cases Poole's teaching has recently been followed of not suturing muscles, fascia, or skin, packing the wound open down to the peritoneum with vaseline gauze. This was done in a few cases where the peritoneum was undrained, but where infection of the abdominal wall seemed probable. Unfortunately complete figures cannot be given on postoperative hernia, because of unsatisfactory follow-up; yet the author is convinced that less sloughing of fascia occurs and better healing of the abdominal wall ensues. There were no hernias in children since this procedure was adopted, but there was one in an obese, poorly developed adult. No evisceration has been seen following this method. There were 3 known postoperative herniae in this series, 2 of which were subsequently successfully repaired.

Pathology

No attempt has been made to draw fine distinctions between different stages of acute appendicitis, because for all practical purposes they are of little value, and such distinctions serve to confuse the issues depending as they must on the individual interpretation of the operators, and the accuracy of the operative records. Consequently we have roughly divided the cases according to the pathology into 3 groups; viz., acute appendicitis, acute appendicitis with localized peritonitis

(abscess), and acute appendicitis with spreading peritonitis. All are stages of the same pathological process which advance imperceptibly by degrees which are not clearcut and definite, and, even in such a rough classification, cannot be accurate.

The relationship between the duration of symptoms and the pathology has already been mentioned. The time element between the duration of the disease and rupture of the appendix in children is surprisingly short. The failure to form an abscess following rupture, or else effectually to wall off the disease in fifty per cent of the cases of peritonitis at the time of operation is especially noteworthy, and is much higher than in adults.

There are two obvious reasons for this in infants and young children. The peritoneum is less efficient in forming firm adhesions apparently in inverse proportion to the age. This is an advantage among the survivors resulting in very few cases of mechanical ileus, either immediate or late. None of the cases in this series developed a recognizable mechanical ileus. At secondary operations in children there is a notable lack of firm adhesions about the cecum as a residuum of the original pathology, nor have we ever encountered an ileus from postoperative adhesions in children.

The omentum often is not sufficiently long to reach the level of the appendix, as is the rule in later life. This lack of efficiency in limiting the spread of infection arouses skepticism as to the value of expectant treatment in spreading peritonitis in these cases. If there were any clinical signs by which one could determine with any certainty that a given case of spreading peritonitis would wall off the process, no one could argue successfully against expectant treatment in cases of spreading or general peritonitis. In the inability to recognize any such criterion, the author does not feel justified in giving expectant treatment a trial. Furthermore, in the hands of the inexperienced surgeon some cases under such a régime would be treated expectantly which have not ruptured, with diastrous results to the patients. In this connection attention should be drawn to the 2 cases mentioned above—the case with a 3 day history which entered the hospital moribund, and the youngest case which had been ill two days and was observed for 5 more on the ward and still had failed to effectively wall off the process Bolling, Keyes, and Beekman and most authors advocate immediate operation in all cases ın children

The accompanying table shows plainly that the bacteriology of these cases is far from satisfactory. In some no cultures were taken In some drained cases cultures were not reported, which unquestionably should have been positive. The only explanation for these negative cultures which can be offered is the failure to moculate media before they had dried out, and possibly bactericidal properties of the peritoneal serum in some cases with good resistance Forty-nine positive cultures were obtained, 23 of which were pure cultures, and 26 mixed The colon bacillus was the preponderant organism in forty-four cases Two undrained cases gave positive cultures of colon bacilli, one was uncomplicated, the other had an ab dominal wall infection. None of the gas bacillus type of organisms were identified, nor was there any clinical evidence of that type of infection A curious feature of the bacteriology was the finding of associated respiratory infection in only 2 of 16 cases in which organisms associated with that type of infection were recovered from the peritoneum

Morbidity The hospital morbidity, ex clusive of fatal cases, varied from 9 to 76 days with a mean of 26 The average might have been shortened considerably It has been the custom at St Mary's Hospital to prolong the hospital stay of patients whose physical condition and home environment were unsatisfactory, unfortunately a frequent finding

Secondary Operation Secondary operations in most cases were required for late peritoneal abscesses, 2 were perinephritic,

TABLE IV BACTERIOLOGY

	Pi re Ci ltures	Mixed Culti res
Colon bacillus	19	25
Staphyloccus	1	13
Streptococcus		9
Unidentif ed	1	2
Enterococcus		2 2 2
Friedlanders bacillus Pneumococcus		2
(Bacillus mucorus caps ilatus)		
D plococcus	1	į
Hemolytic streptococci s	1	i
Total cases	23	26

3 were abdominal, 2 of which were opened through the rectum One ileostomy was performed for paralytic ileus, and one acute appendicitis without drainage was reopened because of a spreading peritonitis Three cases in which the appendix was not removed were readmitted later for appendectomy. One of these was operated on originally for a perinephritic abscess, the colon pus and the direction of the abscess tract giving the first clue to the primary disease Two postoperative hermae were repaired Secondary hermae should not be done for three months preferably more after complete healing of the abdominal wound because of the danger of secondary infection Colon bacillus infection in these hernia cases is quite common and suggest that the organisms remain dormant in the healed wounds for a considerable period

Seventeen cases suffered postoperative complications as shown in Table V Most of the complications were the direct result of the appendicitis. None of the coincidental complications resulted in a fatality The evisceration occurred in a child of 16 months, with a rectus incision and a Mickulicz drain on the eighth day postoperatively It was immediately sutured with through and through interrupted silk and healed firmly. It is worthy of note that no intestinal fistulae were still present at the time of discharge from the hospital nor were any operative closures required

Complications at the time of operation, except for respiratory infections, were few Three of the milder cases showed a mesenteric lymphadenitis at the time of operation One of the three was admitted 3 months after discharge with an attack of abdominal pain in the lower right quadrant which suggests that the original attack may have been due to lymphadenitis rather than appendicitis

TABLE V POSTOPERATIVE COMPLICATIONS

Abscess peritoneal	4
Lerinephritic abscess	2 2 1 1
Spreading peritonit's Collapse of lung Pericarditis	i
Contagious disease Otitis media Fvisceration	i

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(3) U U, eighteen months old, admitted March 28, 1923 Duration Two days Onset symptoms Cried frequently, fever, consti-pation, sixty hour catharsis Physical examination Abdomen distended, no tenderness or rigidity, no masses felt, temp 1036°, p 150, r forty eight, W B C not recorded Operation March 28, 1923, right rectus incision, appendix lighted and removed, stump not inverted, two rolled rubber drains one to right lumbar gutter, other to wound Findings. Acute appendicitis with general peritonitis Culture Diplococcus staphylococcus streptococcus colon bacıllus Result Died twelve hours after operation

(4) G L, twenty one months old, ad mitted March 24, 1924 Duration Two days Chief complaint Pain and vomiting, pain not localized, enemas and stupes Physical examination Abdomen distended, general ized abdominal tenderness and rigidity, right thigh flexed temp 102°, W B C 6 000, p 75, 1 25, pulse 164, resp sixty Operation March 24, 1924, McBurney in cision, appendix ligated and removed rolled rubber drain Findings Acute perforated appendicitis with general peritonitis Cul ture Diplococcus staphylococcus strepto coccus, colon bacillus Result Died two days

after operation

(5) D L male, 21/2 years old admitted July 15, 1925 Duration Three days Chief complaint Vomiting Onset Pain in abdomen anorexia, frequent vomiting daily catharsis. Physical examination. Temp catharsis Physical examination 1064°, abdomen distended, palpable mass in right lower quadrant, spasticity right sided, general tenderness, pulse rapid and weak, cynnotic W B C 12 000, p sixty five per cent 1 thirty per cent, trans three, L M two Provisional diagnosis Acute appendicitis with local and spreading peritonitis, toxemia and failing circulation Result Died three hours after admission no operation

(6) J M male 21/2 years old admitted January 13 1927 Duration Six days Chief complaint Abdominal pain Present illness Pain anorexia and constitution Physical examination Temp 1002°, rigidity, tender ness and mass in right lower quadrant, W B C 20 000, p seventy five per cent 1 twenty five per cent Operation January 14 1927, right rectus incision, appendix ligated and excised no inversion, rolled rubber dam drain Findings Acute appendicitis with local and spreading peritonitis Culture Colon bacillus, few staphylococci and strep tococci Result Died forty eight hours after operation

(7) E C male, 31/2 years old admitted

August 9, 1927 Duration Two days Chief complaint Hyperpyrexia Onset Vomiting followed by headache catharsis Physical

Not recorded, temp 1046°, examination W B C 17,300, p eighty five 1 twelve, L M three Operation August 9, 1927, Mc Burney incision, appendix gangrenous and retrocecal, slightly turbid serous fluid, ap pendix removed with difficulty stump in verted, abdominal wall closed without drain age, time of operation forty seven minutes Diagnosis Acute gangrenous appendicitis Postoperative course Stormy, comiting dis tention Hyperpyrexia August 13, W 9,100, p seventy seven per cent, 1 twenty-two per cent, eosiniphiles one per cent Secondary operation August 13, 1927, exploratory celiotomy with drainage Find ings General peritonitis, no evidence of leakage Culture Gram positive and nega tive bacilli, streptococci Result twenty four hours after secondary operation

(8) E McC, male eleven months old, admitted April 18 1928 Chief complaint Pain in abdomen Onset Vomiting followed by pain, catharsis Physical examina tion Slight generalized rigidity and slight distention, later shifting dullness, W B C 15000 p forty three, I twenty one, trans twenty two L M fourteen Operation April 24, 1928, right rectus incision, appendix ligated and removed, not inverted Mickulicz drain Findings Acute ruptured appendicitis with general peritonitis Result

Died four days after operation

(9) E D, 21/2 years old, admitted June 13 1929 Duration Three days Chief com plaint Abdominal pain Onset symptoms Apathy, vomiting, and pain the second day, refused to play Physical examination Slight distention, generalized rigidity of abdomen but most marked in right lower quadrant and right flank, right knee flexed, temp 1034°, W B C 10400, p seventyeight per cent lymphocytes, ten per cent large mononuclear lymphocytes, twelve per cent Operation June 13, 1929, right rectus incision, appendix ligated and excised, not inverted Mickulicz drain, time of operation thirty minutes Findings Acute gangrenous appendicitis with perforation and spreading peritonitis Result Died twenty four hours after operation

(10) M K, three years old, admitted September 26 1930 Duration Twenty four hours Past history Tonsillectomy and ade noidectomy September 23 1930 Onset symp toms Anorexia followed by pain and fever and vomiting Physical examination Ten derness and spasm in right lower quadrant W B C 9 400, p sixty eight, 1 thirty two Operation September 27, 1930, twenty-four hours after admission Course Rising temperature, distention, and persistent vomiting Findings Gangrenous appendicitis with spreading peritonitis Secondary operation

Postoperative treatment. The most important consideration in the postoperative treatment is the replacement of fluids, increasing resistance and maintaining the hydrogen-ion concentration of the blood. The author believes in the early administration of fluids by mouth.

After operation paralytic ileus is much more to be feared than the theoretical dangers of instituting normal peristalsis. When persistent vomiting precludes administration of fluids by mouth, transfusions, continuous saline infusions, and

clyses are of great value.

The value of glucose is still open to question. So far as we know the quantity of intravenous glucose which is available has never been accurately determined. Until such a determination has been made and the amount is or can be increased by the addition of insulin to a worth-while caloric value, it is open to question whether its administration is more beneficial than harmful. Adequate quantities of a five per cent glucose solution intravenously result in a spilling over through the kidneys. The ill effect of diabetes appears to be coincidental with hyperglycemia. Are the benefits sufficient to justify creating a hyperglycemia in infected cases? More than five per cent glucose solution in clyses is dangerous, and fatal complications were seen following even five per cent glucose clyses, prior to the use of the present purified product. The use of purified five per cent glucose clyses appears more logical than glucose infusions, but the quantity that can be given is necessarily much more limited.

A discussion of other postoperative

measures does not seem indicated.

The mortality in relation to duration of symptoms has been discussed above. There is a rise in mortality to the fourth day with a marked drop thereafter, only one death in thirty cases. These are cases of the mildest type who would probably recover without operation, or cases with good resistance that have been able to wall off the disease, and effectually combat

TABLE VI. MORTALITY ACCORDING TO AGE

Years -	Cases	Deaths	Per cent mortality
0-1	8	1	100
1-2		1	12.5
2-3	19	3	15.8
3-4	30	2	6.7
4-5	32	4	12.5

the toxemia. Their outlook is distinctly favorable (Table VI).

The mortality in respect to pathology is in accordance with expectations except for the ten per cent mortality in the unruptured cases. Both of these cases might be considered as possible unnecessary deaths. Both were acute cases with clear or slightly turbid fluid without any local peritonitis and neither were drained. One developed a general peritonitis and died five days after a secondary operation. The other developed a local peritonitis in the pelvis. This was opened the seventh day after the first operation through the rectum, the abscess having been discovered three days before. The abscess wall was tense, thin, and elastic. Death occurred twelve hours later with the signs of general peritonitis. It is probable that a few more days would have further walled off the process from the peritoneal cavity more safely (Table VII).

Case Histories of 11 Mortalities

(1) H. F., female, four years old, admitted August 15, 1921. Duration: Three days. Onset symptoms: Abdominal cramps and vomiting. Frequent catharsis. Pain and vomiting increasing. Physical examination: Abdomen distended; generalized tenderness and rigidity, most marked in right lower quadrant; temp. 102°, W. B. C. 22,000 p. ninety per cent, 1. ten per cent. Operation: McBurney incision, appendix excised; stump inverted; cigarette drain. Findings: Acute appendicitis with large localized peritonitis. Culture: Bacillus mucosus capsulatus. Result: Died four days after operation.

(2) J. T., male, four years old, admitted September 1, 1921. Duration: Three days. Onset symptoms: Lower abdominal pain followed by vomiting which persisted; castor oil. Physical examination: Not recorded; temp. 104°, W. B. C. 24,000 p. eighty-one per cent, l. nineteen per cent. Operation: September 1, 1921; McBurney incision; appendix retrocecal; appendix ligated and removed; not inverted; cigarette drain; time of operation, twenty-seven minutes. Findings: Acute perforated appendicitis with general peritonitis. Result: Died twelve hours after operation.

TABLE VII. MORTALITY ACCORDING TO PATHOLOGY

	Cases	Deaths	Per cent mortality
Acute appendicitis.,	20	2	10
Local peritonitis	35	ī	2.9
Spreading peritonitis	35	8	22.9

THE TREATMENT OF PLACENTA PREVIA BY CONSERVATIVE MEASURES

WARD L. EKAS, M.D., Rochester

From the Department of Obstetrics and Gynecology, University of Rochester School of Medicine and Dentistry

Hemorrhage, as a result of placenta previa, is one of the most serious complications occurring after the middle and particularly the latter third of pregnancy. The changing anatomical conditions in the uterus resulting in the stretching of the lower uterine segment make the hemorrhage inevitable and unavoidable. The first hemorrhage may be slight and go almost unheeded, or it may be fatal. Fortunately, the former is the more common. While other conditions may cause painless hemorrhage during the latter half of pregnancy, placenta previa should be the first considered and eliminated unless a more obvious cause is present to account for the bleeding. The hemorrhage should be taken as a warning that a placenta previa probably exists, and the patient kept under close observation until a definite diagnosis is made. Not occasionally the early threatened abortion becomes the placenta previa later in pregnancy,1

The methods of treatment are divided into two schools; the conservative, who favor obstetrical procedures aiming at delivery through the birth canal; and the surgical, who favor delivery by the abdominal route. There is a so-called third school who individualize each case in determining the method of treatment.²

The prognosis, for both mother and baby, is affected by other factors than the method of treatment, as, the amount of hemorrhage before, during, and after delivery, the duration of the pregnancy, the presence or absence of infection, the variety of placenta previa, the degree of separation, the dilatation of the cervix, the parity of the patient, the injuries to the birth canal, some other complication, and particularly the ability of the obstetrician.^{2,2}

The maternal and fetal mortality remains high regardless of the method of treatment. The maternal mortality is said to vary from one to nineteen per cent and the fetal mortality from ten to eighty per cent according to DeLee. Lack of unanimity on the methods of treatment, of course, means that each method has its shortcomings. The treatment used should aim at keeping the blood loss as low as possible until the uterus is emptied, as well as combating the anemia which frequently is present.

All agree that accouchement force no longer has a place in the treatment of this condition. Manual dilatation of the cervix, even from a partial to full dilatation is comparable to manual tearing. The dilatation must be slow and with uterine contractions, if delivery is to be effected through the birth canal without encountering dangerous lacerations. No attempt at delivery should be made until the

cervix is fully dilated.

Every case of placenta previa should be hospitalized. The home is no place to meet the energencies of this condition, if a hospital is available. Vaginal examinations should never be done until preparations have been completed to control bleading. A fatal hemorrhage may ensue before the bleeding can be controlled unless this precaution is taken. Rectal examinations, unless gently done, fall in the same category. Kellogge condemns them entirely in placenta previa.

The outline used by Holmes⁷ is followed for the most part in discussing the

methods of treatment,

1. Watchful expectancy has no justification once the diagnosis is established,8 unless the patient or relatives refuse to allow the necessary treatment to be carried out. The sudden, profuse, fatal hemorrhage can never be foretold.

2. Vaginal tamponade is a procedure of questionable merit. If used at all, it should be limited to the patient who is bleeding freely and must be transported a considerable distance to the hospital. Its

October 1; ileostomy under local anesthesia. Result: Died twenty-four hours after secondary operation.

(11) P. Z., 2½ years old, admitted August 30, 1933. Duration: Twenty-four hours. Chief complaint: Abdominal pain and vomiting; frequent catharsis and enema; pain worse. Physical examination: Generalized abdominal tenderness and rigidity; W. B. C. 17,900, p. eighty-eight, l. twelve. Operation: August 30, 1933; McBurney incision; appendix stump inverted; closed without drainage. Findings: Acute gangrenous appendicitis with sero sanguinous fluid. Culture: B. colon bacillus. Course: Septic tem-

perature rising; occasional vomiting September 5 rectal abscess palpated; two transfusions and many saline clyses. Secondary operation: September 8; abscess incised through rectum. Result: Died eleven hours after operation with hyperphrexia and symptoms of general peritonitis; autopsy refused.

Acknowledgment

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Not more than five per cent of persons suffering from arthritis can be classed as incurable in the light of modern knowledge and methods of therapy, Dr. Ralph Pemberton, professor of medicine at the University of Pennsylvania, said recently at the New York Academy of Medicine. Although he stressed the fact that there is as yet no cure for the disease, he pointed out that co-ordinated treatment based on careful analysis of the patient can achieve results today which would have been considered impossible a generation ago.

Large numbers of children suffering from serious brain conditions have been saved from death as a result of new methods of treatment developed at Temple University. Dr. Temple Fay, professor of neural surgery at that institution, told three hundred members of the Pediatric Section of the Kings County Medical Society recently. The treatment consists of relieving fluid pressure in the brain cavities by restoring a balance of fluids, allowing a normal flow of blood and oxygen to enter the head.

Twenty-one seniors in the College of Medicine at the University of Vermont are now out on extra-mural service, which is a unique part of their training for their profession, offering them practical experience that could not be obtained otherwise.

Extramural service is a form of training peculiar to the University of Vermont.

Senior students are placed for practical experience in the offices of various doctors in the smaller towns of the State, in each of the State institutions requiring medical service and in small town hospitals. They also do city service work in connection with the Burlington dispensary.

The students rotate, spending a month in each of the specified places. Half of the class goes out one semester and half the second semester.

The purpose of the new methods is to give the seniors special training of a sort they are likely to encounter in practicing in State like Vermont—learning at first hand the conditions under which their work is to be done and the problems they will be called upon to meet. The system of extramural service, to which a small rural State like Vermont admirably lends itself, has been built up with the idea of turning out not so much research men and specialists, but good general practitioners in medicine and surgery who can supply a growing need in the country districts.

Doctor Anthony Bassler has elected President of the National Society for the Advancement of Gastroenterology, President of the American Committee and United States Delegate to the International Society of Gastroenterology and Vice-Chairman of the Gastroenterological Section of the Pan American Congress.

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quently is present.

All agree that accouchement force no longer has a place in the treatment of this condition. Manual dilatation of the cervix, even from a partial to full dilatation is comparable to manual tearing. The dilatation must be slow and with uterine contractions, if delivery is to be effected through the birth canal without encountering dangerous lacerations. No attempt at delivery should be made until the cervix is fully dilated.

Every case of placenta previa should be hospitalized. The home is no place to meet the emergencies of this condition, if a hospital is available. Vaginal examinations should never be done until preparations have been completed to control bleeding.5 A fatal hemorrhage may ensue before the bleeding can be controlled unless this precaution is taken. Rectal examinations, unless gently done, fall in the same category. Kellogge condemns them

entirely in placenta previa.

The outline used by Holmes⁷ is followed for the most part in discussing the

methods of treatment.

1. Watchful expectancy has no justification once the diagnosis is established.8 unless the patient or relatives refuse to allow the necessary treatment to be carried out. The sudden, profuse, fatal hemorrhage can never be foretold.

2. Vaginal tamponade is a procedure of questionable merit. If used at all, it should be limited to the patient who is bleeding freely and must be transported a considerable distance to the hospital. Its

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value depends on placing the pack tightly against the cervix and holding it there by a tight T binder. Before insertion, the pack should be saturated with some antiseptic solution. Gauze is preferable, but cotton balls may be used. The patient can never be cleaned and draped so that the packing is surgically clean, and, as a result, sepsis is more apt to follow this procedure. It is a question whether it ever accomplishes its purpose and it not only wastes time but blood as well.

3. Artificial rupture of the membranes is particularly applicable to the marginal placenta previa, where the presenting part is fairly well in the pelvis and the patient in early labor. The membranes should be widely ruptured and a tight binder placed on the abdomen to help hold the presenting part against the cervix. In selected cases, the outcome is quite satisfactory for both mother and child.3

4. The Braxton Hicks bipolar version is a procedure requiring considerable obstetrical skill and its use is limited to the cases in whom the cervix is sufficiently dilated to permit the introduction of two fingers. It is of particular value in the case who is bleeding freely in the home;8 or in the hospital, when a Voorhees bag is not immediately available. A leg is brought down and the buttocks used to compress the placenta against the cervix. No attempt at extraction is made until the cervix is fully dilated. A weight may be tied to the foot to hold the buttocks against the cervix. The fetal mortality is definitely increased by this method of procedure.8

5. The use of the *Voorhees Bag* is limited to hospital practice. It can usually be introduced through the cervix with little or no dilatation beyond that already present. An anesthetic may not even be necessary. The size of the bag should be sufficient to insure complete dilatation of the cervix, that is, ten centimeters, when it is expelled. The membranes should always be ruptured so that the bag is intra-ovular, for in addition to stimulating uterine contractions and dilating the cervix, bleeding is controlled or stopped. Extra-ovular placing of the bag may cause further separation of the placenta and the bleeding is concealed. The patient must be closely followed and delivery promptly effected after expulsion of the

bag through the cervix, otherwise a profuse hemorrhage may occur at this time. Because of this possibility, everything must be kept in readiness for immediate delivery. Internal version and extraction is usually the preferable method of delivery, but if the bleeding is slight, and pains are of good quality, labor may be to terminate spontaneously. Forceps or breech extraction are done in selected cases.

6. Cesarean section. Four surgical methods are used: vaginal hysterotomy, classical cesarean section, low cervical section, and the Porro section. Numerous articles supporting one of these methods of treatment have appeared in the last few years.8,9,10,11,12

Vaginal hysterotomy has been abandoned because of the poor results and the technical difficulties of the operation in

the presence of placenta previa.12

The abdominal method of delivery is gaining more and more adherents. It cannot be denied that a primipara, who has a central or partial placenta previa and a living, viable child, should be considered for cesarean section, if the cervix is closed and there has been little bleeding.8 Williams¹³ states two indications for cesarean section: (1) the rare case of a primipara whose cervix is too rigid to permit the introduction of a Voorliees bag; (2) a complete placenta previa in a woman nearing the end of the child-bearing period, who is desirous of a living child. Bill,14 DeLce,4 Wilson,10 Siegel,0 and others are advocates of the surgical method. Both the classical and the low cervical sections have their proponents. Those favoring the low cervical section do so on the basis that bleeding can be seen and more easily controlled and that the danger of infection is less.2,4 The Porro section is limited, of course, to the case who is frankly infected or in whom it is desired to remove the uterus for other reasons. Seeley15 gives five contraindications to cesarean section: Shock from blood loss; (2) a cervix four cm. or more dilated in a patient in active labor; (3) if vaginal tamponade has been previously done; (4) if attempts at de-livery from below have been made; (5) doubtful asepsis from repeated vaginal examinations.

One cannot forget that cesarean section

carries with it a certain mortality, estimated by DeLee to be about four per cent but by Williams and Holmes to be ten per cent for all indications. Siegelo reports a series of 101 cases of placenta previa, all of whom were treated by cesarean section with only one death or a maternal mortality of less than one per cent. The fetal mortality was nearly twenty-five per cent. One must remember that the published results and advocates are by men highly trained in their specialty, and such excellent results would never be expected of the less expertly trained man.

This series of thirty-six cases is not presented with the idea of taking issue with those who believe in cesarean section, but to point out the value of the conservative measures. The surgically treated cases are more apt to be those having viable, living babies, leaving the others to be treated by obstetrical measures, with the resulting high maternal and fetal mortality. In this series, no case was treated by surgical measures, and it is of interest to note that not more than one premature baby could have been saved had the surgical method been used. The incidence of placenta previa was one in 147 or thirty-six in 5307 deliveries. In thirty-one cases or 86.1 per cent, a Voorhees bag was inserted to control bleeding and induce labor. In five cases a bag was not used, either because the diagnosis was not definitely established or the cervix was fully dilated when the patient was seen. Of the thirty-six cases, two have had a placenta previa twice on our service, and a third had a placenta previa at term in a previous pregnancy. One case had had a premature separation at term on our service in a previous pregnancy. Four cases were in primipara. Fifteen or 41.6 per cent had spontaneous deliveries and twenty-one or 58.3 per cent had operative deliveries. Four were central

TABLE I-Type of Placenta Previa and TREATMENT

Type No. Treatment Mode of delicery Central... 4 Voorhees bag, 3 Partial... 10 Voorhees bag, 9 Versior and extraction, 4 Spontaneous..... 4 Version and extraction. 3 Breech extraction

placenta previas, ten partial placenta previas, and twenty-two marginal placenta previas. Table I shows the type of placenta previa and the mode of treat-

Manual removal of a part or all of the placenta, because of profuse bleeding, was necessary in four full term and five premature cases. In no case was it necessary to tamponade the uterus and vagina to control bleeding. Pituitrin, one or two c.c.. intramuscularly was given routinely, and ergot, if necessary, A prolapsed cord was encountered twice, and one of these babies was delivered alive by version and extraction. Two cases had cervical tears that were repaired. Twenty-eight cases were vertex presentations, seven were breech presentations, and one was a transverse presentation.

Age Incidence. Eleven cases were between twenty and twenty-five years of age, ten were between twenty-six and thirty, nine were between thirty-one and thirty-five and six were between thirty-six and forty.

Period of Gestation. Ten cases were from five to seven months, fourteen were from seven to eight months and twelve were from eight to nine months.

Duration of Bleeding. Of the thirty-six cases, thirteen had had bleeding for less than twenty-four hours before admission; five for from two to seven days; six for from one to four weeks and twelve for longer than four weeks. Two cases had had hospital admissions for threatened abortions earlier in the pregnancy. One other had been advised for admission for the same reason, but refused. A fourth had been in another hospital for the same reason.

The labors, as a rule, were short. Twenty-six cases had less than ten hour labors, and eleven of these were less than five hours. Six cases had labors longer than fifteen hours. The two longest labors, fifty-two and sixty-eight hours, were in primipara, both of whom delivered living term babies.

The maternal morbidity was high. Eighteen or fifty per cent of the cases had a febrile puerperium. One of these was possibly due to a respiratory infection and another to pyelitis. Four were only one day fevers. Twelve were intrauterine infections (see Table II). Two cases developed a thrombophlebitis, one after discharge from the hospital.

TABLE II-MATERNAL MORBIDITY

1—Febrile Cause not determined.
1—Pyelitis
4—One day fever
2—Intrauterine infections
1—Term—after bag insertion—Spontaneous.
5—Term—after bag insertion—Version & Extraction. One died.
1—Premature—after bag insertion—Spontaneous.
2—Premature—after bag insertion—Breech Extraction.
1—Premature—after bag insertion—Version & Extraction.
1—Premature—without bag insertion—Version & Extraction.
1—Immature—after bag insertion—Spontaneous.

There was one maternal death in this series, or a mortality of 2.77 per cent.

The patient was a thirty year old gravida one at term. The membranes had ruptured prematurely and there had been bleeding for three days before admission. The patient had washed the vagina and vulva with a wash cloth. She had a chill before admission and on admission to the hospital had an elevation of temperature. One vaginal examination had been done in the home. The bleeding had been considerable, the hemoglobin being 55 per cent. Her condition seemed good. Voorhees bag was inserted, and after a long labor, sixty-eight hours, delivery of a 3440 gm. living child was completed by version and extraction. The child died later of congenital heart disease. The placenta was manually removed, and not more than 300 c.c. of blood was lost at the time of delivery. She developed a hemolytic streptococcus septicemia and died. Six transfusions were given.

Fetal Mortality. Twenty-four or sixty-seven per cent of the babies were alive when born. One full term child died of congenital heart disease. Two premature and five immature babies died of prematurity. Babies weighing between 1500 and 2500 gms. are called premature and those weighing less than 1500 gms. immature. Twelve babies were still-born, and of these tẃo were term, four were premature, and six, were immature. Only one still-born was an intrapartum death, and it was a premature baby. Of this series, eleven cases were full term, fourteen were premature and eleven were immature. The uncorrected fetal mortality is twenty or 55.5 per cent. No other method of treatment would have saved more than one baby. Table III gives a summary of the fetal mortality.

TABLE III-FETAL MORTALITY

24 or 6673% of babics were alive when born
Nine—Full term—One died of congenital heart disease.
Ten—Premature—Two died.—Prematurity.
Five—Immature—All died.—Prematurity
12 or 3314% of babies were still-born.
Two—Full term—Dead on admission.
Four—Premature—Three dead on admission.
One intrapartum death.
Six—Immature—Two dead on admission.

Transfusions: From one to six transfusions were given in twelve cases. It is a wise precaution to group and match each case of placenta previa immediately after admission. By so doing, valuable time and perhaps a life may be saved later. Members of the family or professional donors may be used. The prospective donor should be kept at hand so that the emergency transfusion may be given, if it becomes necessary. Transfusions may be necessary to combat shock and hemorrhage before any operative procedure is carried out as well as after delivery. Either the indirect or direct method is used. Unquestionably many cases are saved by a timely transfusion, and its use is invaluable.1,5

The first danger to the mother is that of hemorrhage. The degree of separation of the placenta as well as the size of the sinuses opened determine the amount of bleeding. Any cervical tears from attempts at delivery through an incompletely dilated cervix add to this blood loss. Early appreciation of the importance of the first bleeding in the latter half of pregnancy cannot be stressed too strongly.5 Fifty per cent of the cases in this series had had bleeding longer than one week and 331/3 per cent for longer than four weeks before admission to the hospital. Only about a third entered the hospital with a history of bleeding less than twenty-four hours. The sooner the condition receives proper treatment, the less blood will be lost and also the less chance of infection. Because of the location of the placenta on the cervix, these patients are particularly apt to have puerperal infections. Add to this, attempts at treatment by inexperienced obstetricians under conditions as found in the homes or smaller hospitals and one can see the importance of infection in determining the prognosis. In this series of cases fifty per cent had a febrile puerperium and 331/3 per cent puerperal infections. The mortality was low, (2.77%) but this

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one case died not from hemorrhage but infection. More cases are lost from infection than hemorrhage. Hemorrhage may be treated even in the home by a timely transfusion, if the precaution of having a donor ready has been taken. Vaginal tamponade, pelvic examinations, operative procedures, etc. should not be done under conditions where the technic is questionable. The greatest care must be exercised in maintaining asepsis in treating these cases. The frequency of infection makes cesarean section an even greater risk, except in well selected cases.

Fetal mortality is not dependent so much on the method of treatment, for many of the babies are premature or even immature, and a high percentage will die of prematurity.2.5,12 Of this series, only about thirty per cent of the babies were at term. The same number were immature, and in this group a mortality of approximately one hundred per cent is expected. Asphyxiation from separation of the placenta or hemorrhage is an important factor, as a third of the babies were dead on admission. Add to these two, the accidents of labor, even in cesarean section, and it is easily seen why the fetal mortality remains high. When we can decrease the mortality of premature babies, the fetal mortality in placenta previa can be decreased.

The advantages of the conservative or obstetrical proceedures, using the hydro-

static or Voorhees bag are:

(1) They can be used in all cases; (2) the bag controls hemorrhage and stimulates labor pains, thereby, dilating the cervix so that delivery can be completed without undue delay. The same is true for the Braxton Hicks bipolar version; (3) they incur less risk to the mother than surgical methods; (4) they require less technical skill than surgical treatment; (5) the presence of infection is not a contra-indication to their

The disadvantages of the Voorhees bag are:

(1) Some babies are lost by asphyxia from prolapse of the cord or from injuries in obstetrical procedures aiming at delivery. More babies are lost by the use of the Braxton Hicks bipolar version; (2) the rubber in the bags deteriorates rapidly, necessitating frequent replacement and inspection; (3) the use of the bag is limited to hospital practice.

The following is a summary of the pro-

cedure in treating a case of placenta previa by conservative measures: (1) Unless it is impossible, transport the patient to a hospital before carrying out any procedure. Rarely, if ever should the vagina be packed in the home; (2) be prepared to carry out a procedure necessary to control hemorrhage before doing a vaginal (or rectal) examination. Do the examination after a most careful clean up technic; (3) if the patient is in labor, and the presenting part fairly well in the pelvis, simple rupture of the membranes and the application of a tight abdominal binder will usually suffice to control hemorrhage in the marginal and perhaps the partial placenta previa; (4) if the patient is not in labor, a Braxton Hicks bipolar version may be done, or a Voorhees bag may be inserted. In the home the former is better, but in the hospital the latter is preferable. Delivery is attempted only after full dilation of the cervix, and then by the most conservative method; (5) have a compatible donor for immediate transfusion, if matching and grouping can be done; (6) watch for hemorrhage during the third stage of labor, and manually remove the placenta, if bleeding becomes profuse; (7) give a c.c. of pituitrin intramuscularly after the third stage of labor and the same amount of ergot if necessary to produce firm contraction of the uterus. It will seldom be necessary to insert an intrauterine pack, if the uterus is watched carefully and massaged; (8) cesarean section may be considered the procedure of choice in the occasional well selected case.

Summary and Conclusions

 A series of thirty-six cases of placenta previa is presented.

2. The maternal morbidity is fifty per cent, and the mortality is 2.77 per cent.

3. The uncorrected fetal mortality is 55.5 per cent.

 All the cases in the series were treated by conservative measures, and in eighty-six per cent the hydrostatic bag was used.

5. Two factors, prematurity and asphyxiation, keep the fetal mortality high.

 Not enough importance is attached to the initial hemorrhage in the latter half of pregnancy as approximately two-th

oses had bleeding for longer !

twenty-four hours before admission to the hospital.

- 7. Transfusions of whole or citrated blood are invaluable.
- 8. Only one premature child could have been saved, if cesarean section had been used. Death was due to prolapse of the umbilical cord at the time a Voorhees

bag was inserted.

- 9. The duration of labor, as a rule, is short.
- 10. Placenta previa should be treated by conservative measures in the large majority of cases and cesarean section used in the few well selected group.

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Discussion

Dr. J. K. Quigley, Rochester—Dr. Ekas has presented an interesting series of cases of placenta previa. He has shown a very low maternal mortality rate for cases treated along obstetrical lines—a mortality rate of zero, from hemorrhage for thirty-six cases.

I prefer dividing the treatment into obstetrical and surgical if you will, rather than using the term conservative and radical. Delivery by the abdominal route in central placenta previa or placenta previa lateralis with a long undilated cervex is conservative and I feel that to empty the uterus by the vaginal route in such a case is radical rather than conservative.

Dr. Ekas said an advantage of obstetrics or conservative methods is that they may be employed in the home; as a matter of fact they must be and we are left with little choice but the Braxton Hicks. Every case of antepartum bleeding should be hospitalized if at all possible.

As I see it, there are about three elective procedures to be considered: (1) Rupture of the membranes, often sufficient in the marginal case; (2) the hydrostatic-bag; (3) cesarean section.

Bags I believe should be used for marginal or lateral placenta previa with a cervix partially dilated and obliterated, and in the obviously infected case. Cesarean section for all complete or central implantations and for many of the lateral variety where the cervix is long and undilated and bleeding is active and the case has not been tampered with. The operation should be preceeded or accompanied by transfusion.

I do not believe all cases of placenta

previa should be delivered by cesarean section but I will admit that the mortality rate of several series of cases so treated is quite impressive; for instance:

Bill in 1927 reported 45 cases prior to 1922 by various methods, 11.1 per cent maternal mortality; 56 cases treated 1922-1927, 72 per cent of them by cesarean section, maternal mortality of 1.78 per cent.

The mortality rate for central placenta previa is twenty to thirty per cent; for cesarean section, five per cent. One reason why I prefer cesarean section under the limitations I have outlined above is that it leaves a lower uterine segment, the site of the placental sinuses, undilated and untraumatized; most patients dying of placenta previa die of postpartum bleeding. Another reason is that in cases within a month of termination, it offers a better prognosis for the baby. Three points made by Dr. Ekas heartily endorse and wish to emphasize: (1) No vaginal examination except under absolute asepsis and then in the delivery rooms with all preparations made for immediate delivery; (2) never manually dilate the cervix even to complete a partial dilation; (3) always type the patient on diagnosis and have a donor at hand.

	Mai. Mori.	Fetal Mort.
Reeb of Strassburg. 32 cesarean sections	. 3%	20%
Keller of Strassburg. 88 cases of obstetrical treatment	6.8	54.5
12 cases cesarean section	0.	8
Siegal101 cases cesarean section,	0.99	17.3
Siegal previously 70 cases of obstetrical treatment	8.57	62.8
Phaneuf 57 cases of obstetrical treatment surgical treatment	8.6 2.9	

TREATMENT OF MOLES AND VERRUCAE

Trichloracetic Acid as an Analgesic Agent

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In the consideration of the removal of non-malignant moles and verrucae from the skin of the face, one has a choice of several recognized methods. The lesion itself, its duration, its location, the age of the patient, and the operator's clinical judgment determine just which method to use. It is not the purpose of this short paper to discuss the question of malignancy of moles, or even the various methods which are commonly used to remove skin tumors, but rather to present a simple method which appears to give excellent cosmetic results, with a minimum of discomfort to the patient.

The local injection of novocain, or other anesthetics, on many areas of the face, especially near the eyes, nose or mouth, even when one uses a very fine needle, is quite painful to most people. This injection also has the distinct disadvantage of producing a distorted field of operation.

A cursory review of the literature fails to show that trichloracetic acid, or the newer dichloracetic acid, has been used as an analgesic for subsequent desiccation with the Oudin current. Much has been written about the use of this acid as a keratolytic agent, even in conjunction with radium therapy (Aikins, 1 Iversen, 2 Fitzgerald, 3 Davis 1). The use of the chemical is not new in the treatment of certain lesions of the mucous membranes of the mouth, nose and throat. It is well known to rhinologists and laryngologists that this acid gives relief from pain when applied locally, especially to chronic ulcerations. A similar action may be expected when it is applied to the skin so that the deeper layers are affected.

Trichloracetic acid occurs as a white crystalline substance with a melting point of 55° C. It is not only readily soluble in water but is dequescent. Since there is usually some moisture on the skin, the small crystals seem to melt quickly when applied locally. The addition of a very

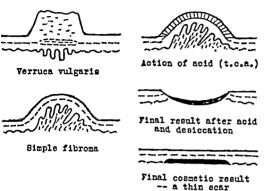
small quantity of water to the crystals, gives one a strong solution which is practically as effective and possibly more convenient to use.

Dichloracetic or bichloracetic acid is closely related to trichloracetic acid in its action and use and is possibly stronger in its escharotic action. This acid occurs as a clear, colorless, slightly viscid liquid. Both of these acids seem to be more keratolytic than the other commonly used preparations.

The method which I have used is as follows. If there is much hyperkeratosis the surface of the lesion is shaved down with a knife, scissors, or even a curette. The acid is then applied full strength to the surface of the lesion, using a toothpick or other suitable applicator. Care should be taken to avoid spilling the acid onto the surrounding skin. This may be prevented by ringing the lesion with vaseline. Even if a small amount does spill it may be neutralized readily with a bicarbonate of soda paste or with ordinary calamine and zinc lotion. Any bleeding which may occur following shaving will be controlled by the action of the acid.

After a minute or two, when the painted area becomes thoroughly whitened, it will be found that a degree of analgesia has developed, which, in most instances, is sufficient to permit light, interrupted desiccation. This light desiccation will increase the analgesic effect until a moderately strong current may be used without discomfort. A slight burning from the acid and a sensation of warmth from the desiccation will usually be the only subjective sensations. Care must be taken to proceed slowly to avoid the development of too nuch heat from the desiccation.

The desiccation is continued until the surface of the lesion appears to be level with or slightly below the surrounding normal skin. There is a shrinking effect which exaggerates the amount of destruction which actually occurs. If the desiccation is carried to the point where the surface of the lesion appears to be level with the skin it will be found that complete destruction of the lesion has not been accomplished, and more treatment is needed. It is often advisable to do this since the final result from this "fractional" destruction of soft moles and fibromas may be no visible scar at all. The interval





between treatments should be two or three weeks so that epithelization is completed before further treatment is given.

After each treatment, a crust forms within a few days. This should be protected and allowed to drop off. In any event, the final scar will usually be smooth and soft. Depending somewhat on the nature of the growth and probably on the amount of destruction attempted at any one time, one sometimes sees a loss of pigment in the treated area. This is thought to occur more often when it is necessary to destroy the entire skin layer and the supporting connective tissue in order to remove the growth.

An attempt has been made to compare the analgesic affect of these acids with carbolic acid and with benzyl alcohol. Carbolic acid compares favorably with trichloracetic acid but is definitely less keratolytic. Benzyl alcohol is less analgesic and has no keratolytic action and is therefore of no practical value for this purpose.

Although the best results have been obtained with the so-called "non-malignant" mole, fibromas and small warts, the method is suitable for almost any lesion which requires desiccation. Other lesions which have been treated with this method are vascular nevi, scar cicatrices,



keratoses and even small "corns." It is possible to curette the lesion after treatment but a reapplication of the acid is necessary before further desiccation is done.

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Discussions

Dr. Samuel M. Kaufman, New York City: I have had the pleasure of having read Dr. McLaughlin's paper before this meeting as the doctor has been kind enough to mail me a copy of it beforehand.

After reading the paper carefully, also after having had the privilege of observing Dr. McLaughlin's treatment of such cases at the Skin Department of the Vanderbilt Clinic before and after treatment, I am in a position to state that Dr. McLaughlin has made a valuable contribution to dermatology.

While the use of trichloracetic acid as an analgesic agent on nonmalignant growth is not new, the combination of the use of trichloracetic acid with Oudin current has not been mentioned in the literature, and with its use one is able to minimize the strength of the desiccating current as well as decrease the time of application; the lesions are destroyed with the least irritation and with a good cosmetic result.

While on the subject of the treatment of moles and warts, particularly moles, which usually occur on the face of the fair sex and the reason for their removal is more of a cosmetic nature, I am always faced with two serious problems which I will appreciate if the author of the paper or any other member of the section will be able to en-

lighten me, namely:

(1) How can we, with reasonable safety, judge what type of moles are dangerous and where is the borderline between malignant and nonmalignant type? While I have been fortunate in having removed quite a number of pigmented and nonpigmented moles without any fatalitics, I always stop and hestate before I attempt to remove such

growths.

(2) Tendency to keloid formation which sometimes follows removal of moles or warts either by trichloracetic acid alone or desiccation or by a combination of both. I have met with such cases in the past, but in order to guard myself against such an occurrence, if there is more than one mole to be removed I usually remove the smallest one first and wait some time, to guide myself by the result, before I attempt to remove any others; also by observing the scar formation of the vaccination marks which is usually a clue as to whether or not the patient is subjected to keloids.

Dr. H. D. PARKHURST, *Utica*: I wish to congratulate Dr. McLaughlin on the excellent presentation of his paper at this meeting.

We have been doing this work for nine years, using a Wyeth Endotherm and it has given me a great deal of satisfaction in this work. I have also done a great deal of extensive work in malignant growths and lunus

I differ from the author in the use of the local anesthesia. We have had excellent results in using Abbott's butyn two per cent subcutaneously. As soon as I make my injection I can start desiccation and always complete my work with one treatment. The technic I use is one that I have worked out myself.

I desiccate them with a Bard Parker No. 15 blade and curette away the charred tissue. That allows me to determine if I have carried the desiccation deep enough. A pigmented mole or xanthoma I continue to desiccate until I have gone below the pigmentation.

I think the healing is better to curette away the desiccation and lightly dry the surface with a spark. Treatment: Peroxide, Salve. B.F.I. Powder.

In removing a verruca along the edge of the eyelid, a few drops of butyn injected makes it safe and painless.

Many moles are borderline and I think a complete destruction essential.

We remove the verruca around the finger nails with the same method and it is necessary to do rather extensive work to cure them. The scarring is not bad, also I remove many molluscum contagiousum from the plantar surfaces of the feet. There the deep injection is necessary. Here I use both the cutting current encircling the molluscum and remove it like a small button, then I dry the surface with the spark, then curette to make sure there is a clean base and finish by another light spark to dry the surface. Treatment: Peroxide, Salve, Balsam Peru, B.F.I. Powder.

Since learning about the subject of the paper I have tried the trichloracetic and bichloracetic acid. The first one I tried I thought would be a good test—that of venereal warts. I was obliged to resort to

the local injection. Then thinking that was hardly fair to the treatment I tried it on several moles on the face but I much prefer

the butyn.

The scarring on the face has been very slight and patients repeatedly return for more moles to be removed. If I have any doubt about their scarring I try only one or two, then observe their healing. I find a ruddy complexion heals well with practically no marking.

The cases I am most careful with are the ones with a pasty complexion with no color. I sometimes ask them if they have any scars from injuries or operations then I can determine if they are subject to keloid. If so I follow the treatment with either radium

or x-ray.

I think the senile verruca on the face would be a good condition for the acid applications, but for the deeper conditions such as moles and verucea a local injection should be made, as my patients say that it is painless after the injection.

Dr. R. R. M. McLaughlin: In reply to Dr. Kaufman's question concerning the malignancy of moles, it may be stated that I know of no way of deciding this. It is not my intention to discuss the question of malignancy, but, as pointed out by Dr. Mac-Kee, many years' experience in the removal of the "so-called non-malignant" moles have shown that it is a rather safe procedure. The individual's clinical judgment must be depended upon to determine which moles belong in this class. The question of keloid formation must be considered. One should examine old scars, such as vaccination marks, as Dr. Kaufman suggests, to see if there is any tendency in that direction. If there is such a tendency, almost any method of removal must be considered likely to produce keloid formation. This method is offered as an optional method for the removal of non-malignant moles and not as a substitute for all or any previous methods. Electrolysis is certainly to be recommended in many cases.

DEATH AFTER EYEBROW PLUCKING

An English doctor described the practice of eyebrow plucking as "very dangerous indeed" during an inquest at Birmingham. The inquest was on the body of a hairdresser, who died in Birmingham from streptococcal poisoning. A verdict of "Accidental death" was returned.

It was stated that, two weeks before her death, Miss Amos plucked her eyebrows. A pimple came over one eyebrow. medical treatment, but refused to have the pimple opened, and the infection spread.

Dr. B. T. Rose said that the infection started where the hairs had been plucked. The practice of plucking eyebrows was very dangerous indeed. The case was the second he had dealt with this year, though the other did not have fatal results. Most hair plucking was done without preliminary precautions, but even if the skin and forceps were sterilized it would not be safe.

An attempt is being made at Akely, Minn., to secure a co-operative physician to locate in that village. The idea is that 200 families pay \$10 each a year and in return they will receive the services of a competent physician whenever necessary at no extra cost except that need for medicine and nurses.

Cancer mortality in New York State in 1934 was the highest ever recorded, the State Department of Health reports.

A total of 17,698 persons died of the

disease, a rate of 131.3 deaths per 100,000 of population. This was second only to the mortality from diseases of the heart.

The higher rates for cancer and cardiac ills is attributed to the increasing age of the population by many authorities. is more die of these diseases because fewer die of something else, and men are mortal.

Twenty years ago a man named Balthazar Balmint went to a hospital in London for treatment. It was discovered he was suffering from a rare bone disease which would probably end his life very soon.

The doctors offered to pay the sick man, on condition that he would will his body to them, one pound sterling per month during his life, and to give his heirs seven pounds sterling.

However, Balmint is still living; the hospital continues to pay him an allowance, and this false diagnosis has already cost about 18,000 francs. Naturisme (Paris).

Science reports that there is a possibility of an influenza epidemic in the United States this winter which is founded on the information received by the United States Public Health Service, that there are about five thousand cases of this disease in This epidemic started early in Honolulu. November.

The last big influenza epidemic, that of 1932, is reported to have started in Hawaii. It invaded the United States with a record of ninety thousand cases.

NEW YORK STATE JOURNAL

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EDITORIALS

Wholly Unacceptable

The Mandelbaum Health Insurance Act is one of the worst specimens of medical legislation proposed in this state for many years Taken as an indication of what to expect if the practice of healing is transferred to the control of social theorists and politicians, it is another compelling argument against obligatory pre payment for sickness

A basic flaw in most so called social in surance is the difficulty of establishing reliable actuarial estimates of risks and income As S Burton Heath rightly ob serves in a series of articles in the New York World Telegram, '* * * all actu arial computations as to unemployment insurance are feathers in the gale when a depression strikes" This applies with equal force to compulsory health insurance, with its unpredictable drains from epidemics Inaccuracies are multiplied by conjecture when, as in the Mandelbaum Act, wages are assumed to include such mexact items as "the reasonable money value of board, rent, housing, lodging or sımılar advantages"

Flying in the face of experience and reason, the Mandelbaum bill combines cash benefits with medical service Malingering, hypochondria, and destruction of the will to recover are inevitable sequels to this coalition, which sets a premium on illness

This, in turn, charges the profession with the uncongenial and onerous duty of preventing unwarranted raids on the insurance fund The doctor must constantly be on guard against malingering and needlessly protracted complaints Invariably this leads to mistrust on the patient's In the end the physician stands alone between insurer and insured, an object of suspicion to both

Although purporting to preserve the free choice of doctor, the Mandelbaum Act places mordinate powers in the hands of the Health Insurance Board This body need not necessarily have a physician among its members, only one of whom "shall be representative of the professions engaged in furnishing the medical benefits", but it has the right to remove practitioners from the approved lists and to erect new hospitals, laboratories, and clinics at its discretion

The whole executive structure of the proposed system is top heavy, entailing an elaborate and expensive bureaucracy in which administrative considerations appear to overshadow the primary question of high grade medical care Naturally the upkeep of this bureaucracy is a first lien on monies collected A vast army of directors, board members, supervisors, managers, clerks, stenographers, inspectors, etc. must be paid before funds are available for medical care—the basic purpose of the law-and the promised cash benefits.

The public should not be deceived into believing that compulsory health insurance is paid for by the limited group that benefits. The contributions from the government and industry are passed on to the entire consuming public in the form of higher taxes and increased prices, so that the whole community pays for dubious benefits to a special class.

In the Mandelbaum Act the evils inherent in compulsory health insurance are enhanced by poor judgment and a total incomprehension of the essential nature of the problem of medical care. This dangerous sample of half-baked politico-social reform should be repudiated so conclusively as to preclude further attempts along the same lines.

A Faulty Comparison

A large New York daily recently headed an article on the amended Workmen's Compensation Act with a caption proclaiming that medical fees may lift the cost of this type of insurance. The unnamed author of the article in question appears deeply concerned with the fact that some of the fees in the State Society's proposed schedule are higher than the old charges; but apparently he has made no effort to compare the suggested schedule with prevailing fees or to investigate the low grade of service under the old rates which prompted a change.

The entire article is a jumble of misunderstanding and misinterpretation. Apparently without knowledge of the restrictions in force, the author complains that "every physician, surgeon and specialist licensed to practice in New York State is entitled to membership on the panel"; that, "instead of becoming a 'blue ribbon' panel, it has become wide open," with 14,000 names on it already, "as contrasted with perhaps 2,500 medical men, selected with care, who had most of the compensation practice heretofore."

It is hard to reconcile the author's

desire for a "blue ribbon panel" with his apparent belief that fifty dollars is excessive for two months treatment of a closed carpal fracture and one hundred and seventy-five dollars excessive for the reduction and subsequent care of an open fracture of the femur. It is not the rule in any profession for low paid work to attract the most eminent practitioners.

Inasmuch as a licensed physician is authorized to treat any and all diseases and deformities of the human body, it would not be as startling as our anonymous critic appears to think if compensation work were open to the entire profession. In fact, however, practitioners must present evidence of their experience before they are accepted and the scope of their participation in compensation work is restricted according to their qualifications. The result so far has been definitely better than when this field was limited to a small group of physicians who, far from being selected with care, were recruited principally from the inexperienced, the incompetent, and the politically connected.

The article under discussion shows so little understanding of the medical aspects of workmen's compensation that it would not deserve mention if it were not for the fact that it appeared in an influential newspaper and similar misconceptions may be widely held. The incident suggests that the profession should clarify its position before the public to prevent interference with its program because of misinformation.

Physical Education Directed by Layman

When the position of Director of the Department of Health and Physical Education in the State Department of Education was about to be filled, there were many among us who were astonished to learn that affairs were so shaping themselves that the appointment would be made of a layman to carry on this particular type of work. The matter received attention by our Executive Committee and by the President of our Society.

Eventually the appointment was made, and a layman received the 10b

Here we have a situation which should not be permitted to recur It would seem to the least thoughtful among us that he who would teach health and physical education, and direct the activities of such a department should be well grounded in the fundamentals of biology and chemis try, as well as those of matomy and pathology, including bacteriology. In no course could so good an education be acquired in these subjects, as in the medical curriculum, while studying for the degree of doctor of medicine It should be a fundamental concept that he who would direct and teach matters concerned with health should be a doctor of medicine

In this connection, and relating to the issues raised in our Executive Committee by the facts, we publish elsewhere in our columns (see page 364) the report of Dr Arthur Bedell, chairman of a committee appointed by the President to report on the facts concerned in the recent appointment which was so disappointing to organized medicine in this State The report should be read by all

The simple, outstanding fact which the report denotes, is that the examination was oral, and the appointment was made upon the finding of one examiner only. The only one to please this examiner who, by the way, was Dr. Jesse F. Williams, head of the Department of Physical Education of Teachers College, Columbia University, was Mr. Hiram A. Jones, who was appointed.

Protests were made by the New York State Santary Officer's Association, the New York State School Physicians Association, the State Health and Physical Education Association, and the New York Teachers Association Our own Public Relations Committee under the leadership of Dr Warren also made contact with the State Commissioner of Education to no avail Everyone is out of step but Johnny!

There is a record of the attitude of mind of Dr Williams which hardly would commend him as mentally equipped to evaluate medical men While the record also discloses a teacher student relationship between examiner and successful candidate, it also seems to show the inherent dangers in any system of competitive examinations in which the determining factors are left entirely in the hands of one man

We would not be warranted in assuming more than is implied in the open record. That this in itself leaves much to be desired is unquestioned. The prestige and the reputation of the whole civil service is just as weak as its poorest element. The integrity of examiners and examinations should be beyond suspicion. Obviously a teacher should not qualify his own student, and certainly to leave it a one man job is putting a premium upon suspicion.

It is earnestly hoped that the Civil Service Reform Association will take cognizance of this case, and investigate it to the end that a repetition of such a procedure will be made impossible

Why Not Cooperate?

There has lately grown up in our communities bad feeling and ill will between practicing physicians and the hospitals. This state of affairs has not been lessened by the "publicity blast" carried in the current news columns of February 17, 1936.

James U Norris president of the Hospital Association of New York, issued a vigorous protest against recent rulings under the State's workmen's compensation law which deny the hospitals the right to charge fees in the treatment of compensation patients for the use of the hospital's own facilities Mr Norris de clares that because the hospital as such has been equipped with x ray machines, and has acquired expensive apparatus to deliver physiotherapy, therefore, the lospital has an inherent right to collect fees for using these facilities on compensation patients

We are aware of the financial predica-

ment in which most of the voluntary hospitals find themselves, and we can comprehend the lure which these fees hold to the exhausted exchequers of the hospitals. Likewise, however, we are cognizant of the facts which resulted in some of the newer amendments of the workmen's compensation law. Some were made necessary because fees were charged and were collected by hospitals for treatments delivered to compensation patients, while the physicians who were responsible for the medical treatments and administered them, were left holding an empty bag!

There would seem to be less need for vigorous protests publicly made which tell only a part of the story, than for peaceful, calm conferences to find that just and true middle ground which actually makes the doctor's services and the care delivered by hospitals complements of each other.

Because the hospital has invested money in x-ray equipment and in expensive physiotherapy apparatus gives it no more logical reason to deprive the roentgenologist and the physiotherapist of the fees they legally earn when treating compensation patients and using such apparatus, than it permits the hospital to collect and keep the surgeon's fees because while performing necessary surgery on the same group of patients he uses sundry hospital apparatus and the hospital operating table.

The hospital rightly, as a corporate body, should be permitted to charge only for domiciliary care. In estimating the charges for such care, the overhead costs, and the use of all apparatus may well be reckoned into the accounting.

Why a publicity blast? Why stress differences, when calm council can bring mutual understanding? The Hospital Association of New York could do better by itself through meeting the profession and working toward, and stressing common ground. Surely there are no two other organized groups from whom so much could be accomplished when they will have learned to work together. Why

The Clinical Day

It is not often that one feature of a convention meeting can be made to appeal to every visiting physician. In the "Clinical Day" which the committee under the chairmanship of Dr. Charles Gordon Heyd is providing there is something for everyone visiting the city during our State meeting. Even for the profession at home in the city there is afforded an opportunity not often used, to visit sister institutions and see colleagues at work.

The local profession in the metropolis is justly proud of its great universities and their fine medical colleges, and also has pride in the distinction of its many independent teaching hospitals and clinics.

Here the seeker after medical knowledge will find anything he needs and wants. Every type of specialty and every type of laboratory is to be found in the convention city this year. Most of the great clinicians, whether on the general program or not, will be found at their posts, ready to demonstrate and show clinical material.

With the least amount of formality, there is available both the expert and his work to answer the problem which is confronting your practice. Use this opportunity, seek him out who can give you something to clarify your problems. Showmanship for itself will not be stressed, but practical, useful methods of diagnosis and therapy, both surgical and nonsurgical, will be "on parade." No tickets for admission are needed. If you know of a man working in a line in which you are interested, you will have little trouble finding him.

Make reservation of your time wisely. Much will be offered, and you will need to award your time wisely to meet your individual needs. The demonstrator is less interested in having a large audience, than in having a group of physicians interested in this kind of study.

We venture the prediction that you will agree that New York City's hospitals and clinics will give you in one day some-

thing in which all your time may be wisely invested. It is the hope of those in charge that both patients and the profession alike will benefit from the interchange of clinical experiences.

The Social Functions of the Annual Meeting

We seem to stress our problems It is necessary that we keep before ourselves the serious duties which we are called upon to carry out Nevertheless the old adage that all work makes Jack a dull boy is never truer than among those of us who work year in and out, and during all seasons, carrying on the society business and its affairs

We have issued an invitation for all to come and observe your elected delegates at work. Your presence will denote your interest and help by showing your accord and appreciation for much devoted service. Learn to know by sight and name those whom you have entrusted with the mandate of leadership.

Nowhere, as in a social gathering can the qualities of a man be evaluated. When "off-guard," and in informal talk, clarity of confused ideas is often more easily possible than during the formalities of parliamentary debate. In the social sessions, during which men meet and learn to know one another, is born that confidence which permits your officials and committee-men to carry on the numerous tasks you assign to them.

The banquet on the evening of the second day is the culmination of the social activities. This year, as we have already stated, the number of available tickets will be strictly limited. Reservations should be made promptly. We shall note details more fully in our next issue. Today suffice it to issue this reminder.

Silicosis

The study of silicosis as an occupational disease has been carried on intensively for the past twenty-five years. Workers in sand blasting, hard rock mining, and granite cutting present those mostly

afflicted It occurs also among the workers in metal grinding industries, as well as among those who are compelled to work in an atmosphere laden with dust particles containing free silica

The disease itself is essentially a fibrosis of the lungs, eventually causing dyspiea, cough, and pain in the chest. Frequently, after a lapse of time, pulmonary tuberculosis develops

In a study of 208 rock drillers, blasters and excavators in New York City, 118 or 57 per cent were found to have silicosis. An investigation by a subcommittee of the House Labor Committee presented evidence which placed the number of deaths from silicosis during the construction of the tunnel from New River to Gauley Junction as having been from 200 to 476.2

Only eleven states have legislation which provides protection for the workmen in industries in which they are subject to silicosis, and gives these workers compensation for the hazards to which they are exposed

Concerning protection against silicosis, there does not seem to be any one sure method that meets the working situation under which these men labor, and gives them satisfactory protection. Until an effective protective means has been devised and perfected, any and all manner of means which will help in diminishing the concentration of dust should be used to safeguard the laborers.

In regard to workmen's compensation regulations regarding these silicosis sufferers it should be recognized that silicosis is an industrial, occupational disease and that late complications are prone to happen. We now realize that silicosis has a prolonged period of latency. Once diagnosed as clinically evident, it is very apt to become a chronic ailment. Standards for diagnosis are not well established, and studies toward this end are needed. Furthermore, a classification of the degree of injury and incapacity is necessary

¹ Smuth Adelaide Ross Journal Industrial Hy giene 40 2 1929 2 Tucker, R N Y Times Sec. 4, page 7, February 16, 1936

Meanwhile, in justice to the workmen, pending some solution of the silicosis problem, this disease should be considered a compensable disease; and because of the late appearance of the complications, the case should not be closed at the initial stage of the pulmonary involvement. The ordinary rules of administering workmen's compensation need revision as regards this affliction. Sufferers from silicosis should not be denied compensation for their malady, or deprived of the right to seek it, because of the lapse of time between which they were exposed to the hazard, and the time when the late pulmonary lesions develop, and its symptomatology is manifest. It requires expert knowledge of silicosis and its complications and considerable experience with such cases, to enable one to make both diagnosis and prognosis.

Organized medicine can help labor by fostering corrective legislation, not only to safeguard the workers, but also to develop the medical administrative data so as to compensate those who must meet the hazards of silicosis.

Spinal Anesthesia

There is no means of producing surgical anesthesia with such a profound relaxation, particularly in the field of abdominal surgery, as that obtained by the use of spinal anesthesia. For this reason many abdominal surgeons have almost totally abandoned other methods of administering anesthesia in favor of the subarachnoid injection of cocaine derivatives. It is true enough that in the largest number of cases wherein spinal anesthesia was employed no ill effects have been noted; yet neurologic disturbances have been noted, and recorded.1-8 Among such reported observations are cranial nerve palsies, myelitis, lesions of the cauda equina and meningoencephalitis. Brock, Bell, and Davison 4 report two cases of aseptic meningitis, one case of polioenceph-

alitis; two cases of cauda equina neuritis; one case of lumbar radiculitis, and one of transverse myelitis. All these followed spinal anesthesia induced by nupercaine, Jones solution, procaine, etc.

It is known that spinal anesthesia has produced degenerative changes in the spinal cord, disintegration of the axones, and degeneration of the peripheral portions of the cord. In some instances these effects are attributable to chemotoxic reactions. Not all patients are prone to such tissue reactions however, although some undoubtedly are. It is thought that chemotoxic reactions account only for some of the bad after-effects noted, and it is surmised that there are probably other factors which play an etiologic role in the production of the lesions noted above.

Brock and his associates believe that certain individuals are possessed of a nervous system whose tissue is particularly sensitive to the cocaine derivatives. At the present stage of our knowledge, there exists no way to determine in a given case, the presence or absence of this sensitivity. Furthermore, once nervous complications have appeared, we are handicapped by the lack of any effective therapy to combat the development of the neural lesion.

From these observations, we are forced to conclude that except for the more profound abdominal relaxation obtained by the surgeon, he increases the surgical risk in his case when he uses spinal anesthesia rather than diminishes it. No surgeon employing spinal anesthesia can be sure that later in the case-history of the patient neurologic disturbances will not appear.

We are induced to comment on this because of the trend in surgical practice to utilize spinal anesthesia as a routine measure, and by drawing attention to the reports of competent observers, warn of its dangers. Brock urges, and he is supported by E. D. Friedman, that Hyslop's dictum should be our guide; to wit, "Spinal anesthesia should be restricted to a special group of individuals unable to withstand the risks of a general anesthe-

^{1.} Hyslop, G. H.: Surg. Gyn., and Obstr., 57:799, 1933.

Smith, W. A.: J. Med. Assoc. Georgia, 22:297,
 Lindemulder, F. G.: J.A.M.A., 99:210, 1932.
 Brock, S., Bell. A., and Davison, C.: J.A.M.A.,
 106:441, 1936.

CURRENT COMMENT

THE ASSOCIATED PRESS reports from Albany, under date of February 17 in the New York Sun, that New York's health conditions at the beginning of this year were the best in many years. This is according to reports made by the State Department of Health. The exception is to be found in cancer. The death rate, 10.8 per thousand of population is the lowest in a half century. Infant and maternity mortality was the lowest in history. Deaths from appendicitis, suicide, homicide, alcoholism, and automobile accident death rates were also exceptionally low. Dr. J. V. De Porte, the director of the division of vital statistics states that the cancer death rate had risen to "the highest level so far experienced."

From Medical Economics of February, 1936, we find an interesting article by J. Weston Walch who is general manager of the Debaters Information Bureau of Portland. Maine: and also is compiler of the Handbook on State Medicine. He writes an article in which he says, "I don't want to be a statistic! Statictics have no feelings! * * * I rebel at becoming an impersonal number. When I have a stomach ache it is my ache. It hurts me, * * * I am not interested in the fact that 79% of the American people should go to a dentist. I have got to go to a dentist. * * * When I am very sick, I am very unreasonable. * * * I want the best doctor regardless of whether my ailment is a little one or a big one. That is the one time that I insist on efficient service. * * * (1) Would state medicine provide me with the best of doctors? (2) Would those doctors have modern equipment? (3) Would they be interested in me and my welfare? (4) Would they treat me quickly and efficiently? * * I have seen too many politicians spending too much money to get into public office to believe that many of them are honest. I wouldn't accept the advice of one of them in betting on a horse race or a prize fight, let alone in picking a doctor to operate on

I have so often heard the free school system compared with our medical system that I immediately think of our present school equipment in connection with state medicine. The economics classes in the biggest high school in my own city are studying from a textbook which teaches that the Federal Reserve System put an end to all depressions! You can imagine when that book was written! I wouldn't want a doctor with equipment that antique. And I'm afraid that's what my state would give me!

The same politicians who would be able

to force an inferior surgeon into the hospital system in my community would also control the funds which would go to operate the system. I fear that the order for ether, or bandages, or vaccine, would not be approved until the right politicians had received their little rebates. * * * Would these doctors be interested in ME and my welfare? It is a bit difficult for an efficiency expert to see why I want my doctor to be interested in MY troubles and not be satisfied to have him make a mere scientific attack on the malady with which I am afflicted. This is difficult for any one to appreciate when he is well and the problems of sickness seem remote. I must ask you to try to imagine how state medicine would work when you are seriously ill-when the things of time and sense in your everyday world recede and leave you isolated to face the forces of disease. * * * You are patient number 196 in ward 112. You were sen there by doctor D-19 and examined by intern number I-42 preliminary to opera-tion by surgeon S-76. The surgeon does not have to come to see you. He can learn all about you-your past medical history and present complication-by consulting his card index. You are merely a part of his day's work. Besides, he has other patients a lot sicker than you are. As you lay there you wonder how many of those patients got that way through neglect under the "free" state system. And that helps neither your peace of mind nor your recovery.

The efficiency experts may be satisfied with the marvelous statistics that the state medical systems will keep, covering the records of each patient. But as for me, I don't want to classified. I want to be cured!

* * * Under a state system, if a doctor told a patient that he didn't need any pills and treatments, he would be suspected of loafing on the job. If he prescribed treatment distasteful to the patient, or if the patient regarded it as inadequate, he would run the chance of being reported to the management, like an impudent hotel bell-

hop!"

From the Health News of February 17, 1936, issued by the State Department of Health at Albany, New York we read that: "Expenditures in 1935 for medical care of the needy unemployed on relief in New York State totaled \$3,340,000, more than two per cent of all home relief expenditures according to a recent report by H. Jackson Davis, M.D., director of medical care for the State Temporary Emergency Relief Administration, and assistant director of local health administration, State Department of Health.

After five years of business depression

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and unemployment, Doctor Davis points out, the general public health in New York State has never been better than it is today. Medical authorities are agreed that proper medical care of the great group on relief -which has included one-sixth of our population and one-quarter of all the children in the State-has been of paramount importance in the continued health of the whole community.

The expenditure of this money for medical care of those on home relief was an integral part of the relief given under the terms of the Wicks Act by which the State of New York recognized medical care as a necessity of life along with food, clothing,

and shelter.

Since the TERA has insisted that the money should be expended for the purpose of supplementing rather than supplanting existing facilities, a large part has provided medical services to the needy in rural districts. This means, not that the rural communities received more than their share of relief moneys, but that, lacking extensive public medical facilities, they spent a larger portion of the money to provide needed medical care while in New York City, for instance, where the hospital and out-patient facilities were numerous, such money went for food and shelter."

WE QUOTE AGAIN from Medical Economics "A questionnaire was of February, 1936. sent recently by the state medical association of California to all its members, asking their views in regard to bills which would make health insurance compulsory. Late reports have it that the replies to date from California physicians are 63 per cent against the association endorsing legislation to change the status quo of medical practice; 76 per cent against compulsory health insurance; and about 58 per cent for voluntary health

Dr. WILLIAM H. HOLMES, Associate Professor of Medicine of Northwestern University Medical School, says: "The general public has little realization of the tremendous amount of effort expended annually by individual physicians and by organized medicine in combating pernicious legislative measures, sponsored by misguided enthusiasts and by those with ulterior motives. There isn't a legislature in America which does not annually have bills presented for consideration which would, if enacted, destroy health pro-Bills to lower the standards of medical education to force the recognition of untrained cultists by health boards and hospitals, to prohibit animal experimentation, are common dangers which must be fought constantly. The opposition of medicine to such measures is based on its obligation to protect the public health, and to protect scientific and clinical investigation into the nature of disease.

In its opposition to measures that threaten the public welfare medicine employs no lobby; it makes no threats; it offers no political support. To accomplish its purpose, it must depend in the future as it has in the past, on the influence of enlightened public opinion. American facilities for medical care are unsurpassed but much remains to be accomplished before the ideals of medicine are realized. In their realization, society has obligations no less than those of medicine." -From the Supplement to the Bulletin of the Medical Society of the County of Queens, January, 1936.

THE Health News of February 3, 1936, carries the announcement of the retirement of Dr. Hugh S. Cumming as surgeon general of the United States Public Health Service on February 1st. "Doctor Cumming entered the Public Health Service in 1894. In 1920 he was appointed surgeon general, and at the time of his retirement was nearing completion of his fourth consecutive term in that capacity.

His administration is credited with the establishment of the National Institute of Health, the completion of the national quarantine system, inauguration of preimmigration examinations at American consulates, establishment of a national leprosarium and national narcotic farms, and construction of eight marine hospitals. He has figured prominently in the promotion of international health activity as vice-president of the Health Section, League of Nations; American member of the Office Internationale d'Hygiene Publique; United States representative and signer at the Pan American Sanitary Convention, Havana; director of the Pan American Sanitary Bureau; and president of the Allied Medical Mission to Poland."

EDITORIALLY, Medical Record carries the following in its issue of February 5, 1936.-"Next to politics, is there a more popular subject in the lay journals than medicine? Pick up any magazine at any time, and there will be at least one article dealing with a medical theme. Everyone is writing on medical economics, saving the doctor from or helping him into some form a socialized medicine. New discoveries or near-discoveries are popularized. Medical memoirs, experiences of patients, phases of medical history, the whys and hows of bodily behavior, the ways of bacteria and cancer and the liver, and countless health matters are

rephrased in popular terms for the tremendous magazine-reading public. Some of the articles are of passing interest, some are of negligible value, and some are important. Occasionally one appears that the doctor cannot afford to miss."

THE Westchester Medical Bulletin of February, 1936, carries the following editorial which is so enlightening that we are publishing it in full. "The Bulletin of the publishing it in full. American Medical Association for October, 1935, contains a reprint from the Journal of the British Medical Association of an article by Dr. McI. Johnson, M.B., B.Ch., who, besides being a practicing physician is a barrister-at-law. This paper, entitled A Case Against the Extension of Public Medical Services, cuts through the maze of sentimental irrelevancies which befog most discussions, both pro and con, on the subject of State Medicine, and lays a precise finger upon the basic issue with respect to which anyone who takes sides in this question must ultimately be prepared to state his position.

What is this "basic issue?" Let us approach it by considering these passages quoted by Dr. Johnson from a recent book by Lord Hewart, the present Lord Chief Justice of England, entitled The New

Despotism:

"In the kind of "legislation" which is being considered, it is usual to provide that the decision of the Minister shall be final and conclusive. When this is the case, the courts are powerless to intervene, however unjust and absurd a decision may appear to be . . It may be said that there is no substantial ground for the fear of unfairness or corruption in the Civil Service. . . . But if there were any great extension of the system of giving uncontrolled and arbitrary powers to public officials, it is as certain as that night follows day that corruption might creep in. We might then be cursed with the corrupt bureaucrat. The bureaucratic despot we already have. To take a simple instance, the treatment of the panel doctors under the National Health Insurance Acts is pure despotism. The doctors are liable, at the mere discretion of the official who acts for the Minister of Health, to be ruined professionally by being struck off the panel, or, as a lesser punishment, to be fined to an arbitrary extent.'

"Thus it is the considered opinion of the Lord Chief Justice of England that the treatment of the physicians under the vaunted British Health Insurance system is pure bureaucratic despotism and further, while he finds no present evidence of political corruption in the system, Lord Hewart warns that

as increasing powers are given the civil administrators of the system, the contamination of corruption will follow as night the day.

"'These paragraphs (and in fact, the whole book), asserts Dr. Johnson, should be read by every doctor practicing or in-tending to practice under the panel. They should be hung, like the landladies' texts of our student days, by the bedsides of all those who frame the policy of the medical profession. We should be aware of the dangers of our position as pointed out by the highest judicial authority in the country. Lord Hewart clearly demonstrates how our rights as individuals can be stolen away by a few words insidiously inserted here and there into Acts of Parliament: "The Minister's decision shall be final," "to determine as the Minister shall think fit," etc., can abrogate rights gained and retained through centuries of struggle, and hand us over to the arbitrary jurisdiction of minor civil servants. Yet we doctors hasten to throw ourselves under the wheels of this juggernaut. the Ministry of Health in unfriendly hands. the slender protection of medical service subcommittees could quickly be abolished; should we not awake before the "Divine Right of Insurance Clerks" receives its final affirmation?'

"In another passage, Dr. Johnson warns that: 'Should it (the administration of the system) fall into inefficient or inimical hands it has, in its present form, endless unfavorable possibilities. There is a certain distastefulness about "complaints to the insurance committee"; there shows itself, even now, the inevitable tendency of the bureaucrat to tyrannize over petty matters, and an accompanying tendency to back the patient up against the doctor; and there is, worst of all, the absence of any right of appeal to the courts of law from the decisions of the "Minister" (which means, of course, an official in the Ministry of Health)-the complete denial or our right to ordinary English justice.'

"Now if the American physician were to submit himself to a program of compulsory state health insurance, who can doubt the inevitability of political corruption from the very start? Lord Hewart finds 'no substantial ground for the fear of corruption in the (British) Civil Service.' But, unfortunately, as every school boy in America knows, to mention the American Civil Service in the same breath with that of England is to confer a gross libel upon the English Civil Service System.

The whole tradition of civil service in America—aside from a few notable areas in the lower ranks of certain public services—rests upon the thesis that government appointments are properly the plums of political spoilsmen. An illuminating commentary on this condition is found in an article by Mr. Kenneth Coolbaugh under the title 'Public Servant,' which appeared in Nation's Business for December, 1935.

Rightly or wrongly, the American profoundly distrusts the integrity and efficiency of the public service. At the same time he fears instinctively that any enlargement of the civil authority inevitably means a curtailment of civil liberties. As applied to the investment of social control over great monopolistic accretions of industry, this popular mistrust is perhaps mistaken and regretable,—but when the issue is the intrusion of bureaucratic absolutism into the realms of the sciences, arts, and individualistic services,—our antipathy to governmental control rests on a sound bedrock of wisdom.

The American physician knows, deeply and intuitively that State compulsory health insurance in the United States could not be anything but a disgustingly corrupt, expensive, despotic, inefficient juggernaut, debasing the incentives, the ideals, and the character of both the practitioners and the practice of medicine, and his experience with the emergency programs of state medicine that have been forced on him in the past several years have confirmed his worst fears in this respect.

But the issue of the socialization of medicine involves a larger public question even than the fate of modern scientific medicine. If the public endorses state medicine, it must expect coincidentally to face the general question of political bureaucratic despotism . . . under what has been historically and traditionally the most corrupt public service in any democratic nation."

"JUST AS MANY CITIZENS are prone to look upon their local government as unimportant, so there are physicians who accord the county medical society an insignificant role in organized medicine. Of course, this

is all wrong. Corrupt and inefficient local units of government can undermine a national administration to such an extent that the very life of the country may be endangered. And so with our county medical societies; unless they are strong and well-organized, obviously, the national organization will suffer.

Recognizing this important fact it is essential that county medical societies be more than mere organizations in name. It is incumbent upon their officers to determine how adequately they are meeting their responsibilities, for it seems apparent that if local problems are adequately met national issues will in a large measure take care of themselves. * *

How effectually the county medical society meets its obligations does not depend as much on leadership of officers as some physicians would like to believe. Harmony, understanding, and unanimity of opinion on vital matters, however, must exist among the majority of physicians. Where such spirit is in evidence much worthwhile progress can be expected even though leadership may not be all that might be desired.

There has been much written about medical society plans which would solve some of the economic problems that confront patient and physician. These plans, whatever their merit, are certainly not adaptable to all communities, and yet we see a tendency among some medical societies to try to fit the community to these plans rather than to adapt what is worthwhile in them to conditions existing in the community. Such efforts can result only in failure and they emphasize the point we wish to make, that a thoughtfully guided and progressive county medical society will, through its officers, study its local situation carefully and sponsor only such measures as seem vitally necessary and desirable for the health and protection of the people."—From the Supplement to the Bulletin of the Medical Society of the County of Queens, in its February, 1936 issue.

The ordinary cup of tea contains only a grain or two of caffeine, but it has a considerable amount of tannin, the amount depending upon the kind of tea and the mode of preparation. Milk added to tea completely nullifies the effect of the tannin.

—Journal of the Canadian Medical Association.

Surgery of the skull known as trephining is by no means modern. It is known to have

been practised 10,000 years ago in Europe, but, strangely enough, it was also known to the Peruvians, and now evidences have been found in Alaska of its use 2,000 years ago among Indians whose skeletons recently have been found.

Court reports in an upstate newspaper tell of a young doctor who sued his grandfather for \$150 for attending his grandmother in her last illness.

Correspondence

[The Journal reserves the right to frint correspondence to its staff in whole or in part whices marked "revote." All communications must carry the uniter's full name and address which will be omitted on publication if derived. Anonymous letters will be disreaarded.

COMMITTEE OF REVISION
OF THE

PHARMACOPOFIA OF THE UNITED STATES OF AMERICA

1930-1940

43rd St. and Woodland Ave. Philadelphia, Pa.

To the Editor:

A copy of the address given in New York City before the New York Branch of the American Pharmaceutical Association, on January 13, 1936, is enclosed. (Address in full given below.)

This outlines the developing Pharmacopocial program, especially "interim revisions" and the program for extending information to physicians concerning the use of official medicines.

It is hoped that these statements will be widely publicized as they should be of interest to every manufacturing and retail

pharmacist.

E. FULLERTON COOK

A PHARMACOPOEIA FOR TODAY'S NEEDS

E. Fullerton Cook

Chairman of the U. S. P. XI Committee of Revision

An Efficient Medicine for Every Therapeutic Need. About a generation ago a new
therapeutic era was ushered in under the
stimulus of a group of earnest clinicians
and pharmacologists who were greatly influenced by the relatively new evidences of
drug action or inaction, through animal
experimentation.

By some critics this group were termed "therapeutic nihilists" since they questioned the value of most drugs in the prevention or treatment of disease. One prominent clinician believed that only about a half dozen drugs were worthy of consideration since their physiologic activity could be demonstrated chemically or biologically.

Under the brilliant and able leadership of Dr. Osler the chairs of therapeutics were driven from most of the medical colleges and it has taken years to return to a reasonable and sound restoration of this important branch of medicine.

This process was revolutionary in nature and like all revolutions the proponents swung far to the left, questioning all traditions and empericisms. Again history repeats itself and medicine is rediscovering the importance of "therapeutics" but basing this acceptance upon clinical evidence and scientific proof.

Tremendous advances have been made in the efficiency and specific character of many medicines during this period; and the thousands of trained investigations in colleges and universities, in heavily-endowed medical research institutions and in the research laboratories of a few of our pharmaceutical and chemical manufacturing firms, give much promise for the future.

During this revolutionary period the Pharmacopoeia has kept pace with every development and the Eleventh Revision represents the clear cut policy of its founder, Dr. Spalding, who, in 1820, stated that a Pharmacopoeia to properly function must recognize the important medicines of its day. Unfortunately a few important medicines are excluded from the U.S.P. XI by the unwillingness of patentees to have their products included. Insulin and pentobarbital are in this group. It has been the policy of the present Committee of Revision to include a medicine for every therapeutic need when such is available.

The New National Formulary contains

The New National Formulary contains preparations and standards for a number of these U. S. P. medicinal substances, especially as tablets or in parenteral solutions, or in nasal and throat preparations and elixirs.

The U. S. P. has taken the theoretical position that it should supply efficient therapeutic agents in such simple form that the physician could combine them in an original prescription to meet the needs of each patient.

In practice, however, the physician often finds it advantageous to use a form of combination prepared by skilled pharmacists, preparations having the correct proportion of medication and suitably flavored For all such needs there should be an official preparation either in the U. S. P. or N. F. and the new revisions of both books are approaching this ideal.

Medicines of Superior and Uniform Quality and Potency. The letters "U. S. P." on a label should mean to physicians, pharmacists and the public a superior quality, one

adequate for every therapeutic need. An honest effort has been made to fix the standards of the Pharmacopoeia so that a maximum of efficiency will always be obtained yet without the unnecessary cost due to the exclusion of the last traces of harmless foreign substances.

Furthermore a reasonable range must be permitted in U. S. P. standards to allow for the slight differences in analytical results obtained by even well-trained chemists and also because some deterioration is likely to occur even under the best storage conditions.

Scientifically Correct and Usable Titles. Some official titles have been criticized because of their cumbersome character and it must be admitted that it is difficult to learn even to pronounce such titles Erythrityl Tetranitrate but this is scientifically correct and had already been adopted by the British Pharmacopoeia, and thus adds to the U.S. P. and B. P. uniformity. This has been a mutual policy for ten years.

In practice the Pharmacopoeia has proabbreviations vided official and synonyms for use by physicians in prescribing, and there are advantages in the use of these which many physicians are recognizing. When titles are too short, euphonious and catchy, especially when they call for trade marked and packaged medicines, the patient usually reads the prescriptions, buys it at a cut price store, and then, if it has been efficient, recommends it to friends. This is not usually in the best interest of the health of the patients or the friends who thereafter are likely to dose themselves with that medicine indefinitely and unwisely. Physicians should learn—and use—official abbreviations when ordering medicines.

Efficient and Useful Vehicles. A wide variety of pleasantly flavored vehicles with different solvent properties are provided in the U. S. P. and N. F. Pharmacists should carry samples of these to physician friends and demonstrate their application. The various ointment vehicles and their specific

uses should also be explained.

Research by Outstanding Scientists, both National and International. The independent and scientific position of the U.S. Pharmacopoeia has always enabled it to command cooperation scientific workers the of

throughout the country.

This feature has been greatly intensified during the past five years and the program now under way offers opportunities and insures results of far-reaching importance. Happily much of this is assuming international importance through the participation of the pharmacopoeial commissions of other nations. The studies now under way deal with vitamins and anti-anemia products,

these two being under the direction of special Pharmacopoeial Advisory Boards consisting of internationally known experts.

Another study deals with digitalis. This will be by clinicians and biological experts and will continue for several years. The help of the British Pharmacopoeial Committee, the Swiss Pharmacopoeial Commission, and the Canadian experts is assured. Other studies dealing with pepsin standards and assay, aconite and ergot assays, soaps and antisceptic solutions, ointment vehicles, the extraction of drugs and the preservation of drugs and chemicals are among the researches under way.

Undclayed Revision of Standards by Interim Revisions Whether Necessitated by Scientific Advance. Although authorized by the Pharmacopoeial Conventions since 1900. the Committee of Revision rarely took advantage of the opportunity to revise the official standards between revisions. The wisdom and actual necessity for such revisions was faced by the Committee several years ago and promptly accepted as an essential policy for a Pharmacopoeia which was to meet the needs of today with its rapidly developing sciences. Four such "Interim Revisions" were released from 1933 to 1935, providing new standards for Cod Liver Oil, Ergot, Lactose, Oil of Lemon, Magnesia Magma, Bichloride Tablets and Non-destearinated Cod Liver Oil.

This policy has fully demonstrated its importance and with many new researches now actively in progress under Pharmacopoeial supervision, with new facts being announced almost daily by the investigators in these related medical sciences, and with valuable new therapeutic agents being developed, the Pharmacopoeia must of necessity adopt the plan of interim revision announcements. It is hoped that official announcements may be made from time to time as revisions or additions are decided by the Committee but that the printed text may take the form of an "Annual Supplement Pharmacopoeia," appearing the January first of each year.

This plan would largely overcome the difficulty of securing publicity to changes, for the users of the Pharmacopoeia would soon learn to expect a supplement yearly and would naturally consult the original Pharmacopoeia and all of its supplements to determine the actual standards in force.

Prompt Recognition of New Medicinal Agents Whenever their Merit has been proven. The U. S. P. Convention also authorizes the acceptance of additions to the Pharmacopoeia whenever, in the opinion of the Committee, the value of a new remedy justified such recognition.

It is not expected that this permission will be taken advantage of very frequently for a medicinal product is not admitted to the Pharmacopocia until its importance has been widely recognized by the medical profession.

Products such as Insulin, unavailable until 1942 because of patent control, will undoubtedly be admitted as soon as the patent

expires.

A serious problem for future Pharmacopocial Committees will be the complications arising from the increasing tendency for universities and manufacturing firms to patent or trade mark new medicinal products.

The policy followed by the Committee up to this time has been the inclusion of meritorious new therapeutic agents of the patented or trade marked class, only when the consent of the patentee or controlling factor had been obtained. When a product was controlled by and its distribution limited to one firm, even though consent to include in the U. S. P. had been granted, it was believed unwise to admit such substances.

This situation must be restudied and, if possible, some way devised whereby essential new medicines may receive Pharmacopeial recognition even though patented, otherwise the basic principle of the Pharmacopoeia cannot be maintained namely that "it shall include the important therapeutic medicines

of its day."

It was never intended that the inclusion of a product in the U. S. P. should in any way alter the legal rights granted an owner under patent or trade mark laws.

An Organized Program for Extending Reliable Information to the Medical Profession Concerning the use of Official Medicines.

A-Articles by Eminent Clinicians Suggesting Treatment for Specific Diseases. Through coperation with the officials of the American Medical Association, one article of a series of twenty-four, will appear every two weeks for a year in the Journal of the A. M. A. These will deal with the use of official medicines in the treatment of disease and will be written by leading medical men specially qualified for he presentation of each subject. The series will be subsequently published in one volume for the information of medical students, medical and surgical internes, and for physicians in practice.

Special Articles will be presented on prescription writing and the use of official vehicles and typical prescriptions will be included.

typical prescriptions will be included.

B—Suggestions and Helps for Hospital
Pharmacists and Pharmacists in General Practice in Extending Information to Physicians
Concerning the Use of Official Medicines. A
corresponding series of 24 articles will appear
in pharmaceutical journals some weeks prior
to the medical articles so that pharmacists
and pharmaceutical manufacturers may empha-

size to physicians the official products to be discussed and recommended in the forthcoming A. M. A. Journal articles. Pharmacists could even fill some of the typical prescriptions and show them to physician friends as an aid to them in prescription writing. This will be appreciated especially by some of the younger physicians who often lack confidence in the writing of prescriptions for official medicines where dosage, solubility, incompatibilities and vehicles are involved.

C-Exhibits for Medical Groups. It is also planned that an exhibit will be placed in the building of the Philadelphia County Medical Society presenting the preparations and prescriptions recommended in each of the A. M. A. Journal articles and these exhibits will be photographed and described for general publication and distribution to pharmacists and

hospitals.

It is hoped that pharmacists in many localities will duplicate these exhibits before medical

groups.

Pan-American Cooperation. It is gratifying to announce that the Pan-American Sanitary Bureau, through its director, Dr. Hugh S. Cumming, Surgeon General of the United States Public Health Service and its Assistant Director, Dr. Boliver J. Lloyd, and their staff, have undertaken the translation of the U. S. P. XI into Spanish as an official activity of the Bureau. It is hoped that the Spanish Edition will be available by April next when a large Pan-American Medical Congress will be held in this country.

It is also expected that the medical articles on the use of official medicines, appearing in the A. M. A. Journal will be translated into Spanish and reprinted in the official Bulletin of the Bureau for circulation through the twenty-one republics affiliated in the Pan-American program.

It should be understood, however, that the policy of the U. S. P. Board of Trustees in translating the U. S. P. into Spanish now for four decades has been primarily that it might be available to pharmacists and physicians in Porto Rico, the Philippines, and in Cuba. In the latter Republic, the U. S. P. has been adopted as the official Pharmacopoeia for more than thirty years and has been made possible through these years by the cooperation of the pharmacists of Cuba and the help of the scientific staff of the University of Havana and especially Dr. Jose Guillermo Diaz.

In the present revision Auxiliary Commissions from Cuba, Porto Rico, and the Philippines have been participating in the revision (see the U. S. P. XI, page viii).

It is expected that each of the other Republics affiliated with the Pan-American Union will eventually issue their own Pharmacopoeia as is now done by Mexico, Brazil, the Argentine and others, but in offering the U.S. P. in Spanish it has been hoped that increased uniformity in nomenclature, tests and standards will be secured on this continent.

Thanks and Recognition for Those who have Made the U.S. P. Eleventh Revision.

The U.S. P. Committee of Revision and Board of Trustees are deeply conscious and gratefully appreciative of the unprecedented loyalty, self-sacrificing labor and large financial help contributed by individuals and organizations during the revision of the Pharmacopoeia.

This help has come not only from American physicians and pharmacists but from many in foreign countries. The close co-operation of the British Pharmacopoeial Commission has been especially gratifying

and points the way to far greater internaparticipation in Pharmacopoeial affairs. It is hoped that within the decade this may be realized by the establishment at Geneva, under the auspices of the Health Organizations of the League of Nations, a Secretaryship of Pharmacopoeias. This is now under serious consideration.

A compilation is now being made of the contributions to the revision of the U. S. P. XI that suitable recognition may be given to those who have taken part in the program. It is only those who have demonstrated a willingness to contribute of their knowledge and time to the scientific or administrative work of the Pharmacopoeia who have earned the right to actively participate in Pharmacopoeial affairs; particularly must the Pharmacopoeia be lifted from the level of politics.

Society Activities

Executive Committee Proceedings

At its meeting on February 13, 1936, the Executive Committee accepted the following report, adopted its recommendations and directed publication in the Journal.

REPORT OF THE COMMITTEE TO INVESTI-GATE THE APPOINTMENT OF A LAYMAN AS DIRECTOR OF THE DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION IN THE STATE DEPARTMENT OF EDUCATION

The Committee appointed by President Sondern, January 6, 1936, to investigate the appointment of a layman as director of the Department of Health and Physical Education in the State Department of Education feels that it is necessary to draw attention to certain facts as they present in chronological order.

Some time previous to April 13, 1935, the State Department of Education decided to combine the two divisions of school medical inspection and physical education. The medical inspection work had for many years been under the direction of William A. Howe, M.D., and Physical Education was under the temporary direction of Hiram A. Jones Ph.D. Dr. Dean Smiley had, after the retirement of Dr. Howe, been serving as provisional appointee, this appointment having been made by the State Education Department.

Õn April 13, 1935, appears:

BULLETIN OF THE STATE OF NEW YORK DEPARTMENT OF CIVIL SERVICE STATE, COUNTY, AND VILLAGE EXAMINATIONS Published June 1, 1935, Page 6. Under special conditions: State Unwritten Examinations later than June 1, 1935, For the

following positions no written examination or appearance of candidates will be required June 1st, but candidates will be rated on training, experience and general qualifications. Ratings may be affected by information furnished in the applications and it is essential that candidates show in detail in their applications all experience that may be of value.

Paragraph 80: "Director of Health and Physical Education, Department of Education. One appointment expected at \$6250. Duties: Under general direction of the Commissioner of Education, to plan and direct the health service, health teaching and physical education programs conducted by the state in the public schools and teaching institutions and to do related work as required. Candidates must be graduates of a college or university registered by the University of the State of New York; should hold the degree of doctor of medicine or doctor of philosophy or equivalent degree with a major in health and physical education; and must have had a combined total of at least five years of successful experience in teaching or in an administrative or supervisory capacity, either in the field of health education or physical education or in both. Additional credit will be given for graduate or professional study in school administration, and other fields closely related to health education and physical education; for contributions to the literature of health education and physical education; and for other special or unusual achievements in this field.

Several candidates appeared for oral examination before the single examiner appointed by the Civil Service Commission. As a result of the examination, the provisional appointee, Dr. Smiley, was ranked fourth, and as we understand the law, the Commissioner of Education was compelled to select one of the first three. For reasons that are not entirely germane to our report, neither the second nor third candidate was, in the opinion of the Commissioner, fitted for the position. The examination was held June 1st and the results announced October 9th.

This examination was oral, and the ratings were entirely those of the single examiner, Dr. Jesse F. Williams, Head of the Department of Physical Education, Teachers College, Columbia University.

On October 17, 1935, Dr. Walter A. Leonard of Cambridge, N. Y., the President of the New York State Sanitary Officers Association, directed a letter to our President.

From the available facts, it seems that on October 24, 1935, Commissioner Graves of the New York State Education Department appointed Mr. Hiram A. Jones over the protest of the New York State Sanitary Officers Association, and other interested bodies including the New York State School Physicians Association, New York State Health and Physical Education Association, and the State Teachers Association. Later these societies sent a letter outlining their position to every member of the Board of Regents, and further through their delegated authorities, lad conferences with the Board of Regents and the Commissioner of Education.

Dr. Leonard states that he referred the matter to our Committee on Public Relations and to Dr. Mitchell, President of the New York State School Physicians Association. He also refers to his communication with Dr. Graves.

Our Public Relations Committee had a conference October 26th at which time the Chairman, Dr. Warren, invited Commissioner Graves to meet with the members and discuss several important matters concerning health and physical education in schools, the program developed by Dr. Smiley, and the appointment of a director of the combined positions,

With this background, I proceed to explain that Dr. Jesse F. Williams, the examiner designated by the State Civil Service Board, was a former teacher of Mr. Jones, and that he has by one of his recent communications presented evidence not favorable to the medical profession, which is so revealing that we feel quite

certain that no court of appeal would hold that he had been a fair examiner. I quote a few of his sentences taken from "Educational Function of Specialists" published in Teachers College Record, December 1935. "... to expect the physician to be an expert in the development of health is to continue the practice of regarding the physician as also priest and prophet," "the physician is generally the most narrowly specialistic, the most exclusive lone wolf in the whole educational pack," "the practice of medical groups of viewing health and physical education in the terms of disease prevention is the real reflection upon the medical services in education." "Medical persons generally fail to understand what development really means, and what vitality and organic vigor represent." "This present activity of medical groups is an excellent example of medical narrowness, of medical intolerance, and of medical failure to appreciate the problems of educating children for life." Such was the background of the examiner.

The examination was regularly advertised and regularly held, but I feel that two essentials were neglected in the preparation for the examination:

1. That the position should be held by one having the degree of Doctor of Medicine.

2. That an interested examiner should not have been requested to conduct the examination.

In view of these facts, I feel that certain definite action should be taken by the Medical Society of the State of New York.

- That the qualifications for this and other such positions closely associated with the dedivery of medical service should be reviewed by our Society and appropriate suggestions made before the examinations are advertised.
- That in view of the facts above stated we ask the Civil Service Reform Association to investigate this recent examination and appointment and render a report of their findings.
- 3. That we acknowledge our indebtedness to our President, Dr. Sondern, and to Dr. Leonard for their excellent work and for their valued protests, all made in the interest of the people and the medical profession, and that we also express our thanks to Dr. Harold H. Mitchell, President of the New York State School Physicians Association, Dr. Ellis H. Champlin, President of the New York State Health and Physical Education Association, to our Public Relations Committee, through Chairman Warren, to Dr. Joseph S. Lawrence, our Executive Officer, and to the legion of others who endorsed the appointment of a graduate in medicine as the head of such an important State Department.
- 4. We believe that in fairness to all concerned such Examination Boards should consist of three members.

ARTHUR J. BEDELL

Committee on Economics

P.IV.A.—Public Works Administration. Federal money, loaned to local civil authorities, supports award of contracts for local improvements. The contractor is engaged in private enterprise and his workmen are in the same status as those of any other employer in New York State. Injured employees come under the New York State Compensation Law. Physicians who have enrolled thru the County Medical Society may render medical care. The injured workman has free choice. Bills for service of physician should be rendered to the employer, or "carrier" if known.

W.P.A.—Works Progress Administration. Federal employment as a relief measure on subsistent wage. When an employee suffers injury arising out of employment he is a beneficiary of the United States Employees' Compensation Law. Regulations provide that District administration officers shall make contact with local medical societies and arrange for care of injured workmen. They further provide that "available" governmental facilities shall be used when By authority of the Executive Committee of the Medical Society of the State of New York, the Committee on Economics has proposed that the same conditions as specified in the State Workmen's Compensation Law be applied. has been arranged that each County Medical Society, thru its Workmen's Compensation Board, may file in the District W.P.A. offices, the same list of physicians which it has certified to the Industrial Commissioner. For the five counties of New York City the headquarters is 45 West 18 Street, New York City, Mr. T. H. Anderson, Compensation Officer, and Mr. J. M. Hamblin, Assistant Compensation Officer. For the other counties of the State, headquarters is at Albany, New York, Mr. C. M. Whipple, Director, Old Post Office Building.

Authorization for care should be obtained, when possible by telephone. Reports must be made promptly, and bills for service should conform to Workmen's Compensation fee schedule, and should be rendered

to the District Headquarters or as otherwise directed from the nearest local sub-office.

Important. The dependants of W.P.A. workmen are NOT entitled to benefits under this arrangement and the workmen themselves are not entitled to care for conditions which do not arise out of a causal relationship incident to the employment. In all such instances the question of compensation for medical care must be taken up with the "welfare" or "relief" officers of the com-The physician is apt to be mistreated because both parties may deny responsibility for the medical care. only remedy seems to be in energetic action by local County Medical Societies in the creation of an informed public opinion and the focusing of that criticism upon responsible welfare agencies.

T.E.R.A.—Temporary Emergency Relief Administration—(New York State Wick's Law), and in New York City. E.R.B.—Emergency Relief Bureau, is the local equivalent to T.E.R.A. in other counties. "Medical Relief" comes under this heading with State headquarters of T.E.R.A. at Albany, and E.R.B. headquarters in New York City, Dr. C. F. McCarty, Director, 20 East 21 Street, New York City.

Physicians must have authorizations, and work under very detailed rules and regulations laid down by T.E.R.A. and E.R.B. Bills are to be rendered at special schedule, and filed with local authority headquarters.

The Wardwell Commission has recommended that T.E.R.A. and E.R.B. be transferred to the Department of Social Welfare. The matter is pending before the State Legislature and some rumors have it that the emergency relief agencies will shortly pass out of the picture.

Confusion may be further occasioned from the fact that on some P.W.A. jobs the contractor may have W.P.A. workmen as supervisors, etc. The physician who wants to be compensated for his services must carefully identify the status of his patient and govern himself accordingly.

Committee on Legislation

Bulletin Number 5

February 7, 1936

As previously announced, the annual conference of county chairman was held in the Hotel Ten Eyck, Albany, on Thursday, February 6th. Minutes of the meeting are being prepared and will be issued later. A list of those present and the action taken on bills, you will find recorded below:

County Societies Represented (28)

Albany	Dr. James F. Rooney
Allegany	Dr. N. H. Fuller
Bronx	Dr. E. C. Podvin (sub.)
Broome	Dr. C. J. Longstreet
Cavuga	Dr. C. F. McCarthy
Chemung	Dr. Ross G. Loop
Columbia	Dr. Clark G. Rossman
Cortland	Dr. William A. Wall
Delaware	Dr. Robert Brittain
Dutchess	Dr. Earle W. Voorhees
Erie	Dr. James L. Gallagher
Greene	Dr. P. G. Waller
	Dr. George A. Burgin

Lings

Onondaga Otsego Putnam Queens Richmond Suffolk Dr Abraham Koplowitz

- Otto Pfaff
F Sympon
F Ell Coon
brick (sub.)
Dr John J Buettner
Dr James Oreenough
Dr Ralph M Hall
Dr Walter L Lynn (sub.)
Dr Vincent G Smith
Dr Grover A Stliman
W Gifford
B Probasco
A Leonard
McNeill Jr

Others present were Drs Armow and Hamilton, of the State I egislative Committee, Drs Haley and Driscoll, of the Legislative Advisory Committee, Dr Alec N Thomson, representing Dr J J Masterson of the Advisory Committee, Dr John J Morton Chairman of the Committee on Medical Research, Dr A J Bedell, Past-President of the State Society, Drs Crockett and Earl of Madison County, Mr Dwight Anderson of the Public Relations Bureau, Mr James E Bryan, Executive Secretary of the Westchester County Medical Society and Dr Joseph S Lawrence, Executive Officer

Bills approved Senate Int 377, Quinn—bringing persons into State for treatment in mental institutions Senate Int 425 Kirk land—bovine animals examined and killed on account of infectious diseases Senate Int 535, Schwartzwald—definition of resi dent Senate Int 536, Schwartzwald—duties of Health Commissioner Senate Int 563 Byrne—jury duty (approved subject to amendment) Senate Int 666 Doyle—medical and hospital expenses of firemen Assembly Int 623, Breitburt—blood test

Assembly Int 623, Breithart—blood test previous to issuance of marriage license (approved subject to amendment) Assembly Int 796, Ehrlich—manner of providing medical care in the home Assembly Int 814 Swartz—removal of sick prisoners from jail

Bills opposed Senate Int 378 Warner—local health officer to serve more than one town or village Senate Int 383 Feld—practice of electrolysis Senate Int 442, Nunan—hours of labor in all hospitals Senate Int 503 Mandelbum—health insurance Senate Int 528 Kelly—establishing division of food in Health Dept Senate Int 537 Schwartzwald—transportation and education of physically handicapped children (opposed in present form)

Assembly Int 864 Hill—chiropractic Assembly Int 865, Hill—chiropractic

No action Senate Int 348 Twomey—extension of TERA Senate Int 655, Buckley—organization and government of counties Senate Int 685, McNaboe—veterans on relief Senate Int 731, Wicks—extensions of TERA

Assembly Int 802, Lo Re-veterans on relief

Fabled Senate Int 560, Thompson—hours of labor in certain State hospitals Senate Int 644, Egbert—hours of labor in certain State hospitals Senate Int 727, Howard—hours of labor in certain State hospitals

Assembly Int 654, Potter—hours of labor in certain State hospitals Assembly Int 833, Ostertag—hours of labor in certain

State hospitals

Intlier consideration Assembly Int 919, Moran—non profit service indemnifying corporations Assembly Int 920, Moran—conduct of hospitals

Since our last bulletin the following bills have been introduced. Some of these were available for consideration by the conference and in those instances its action is recorded.

Senate Int 586—Baldwin, authorizes New York City to finance and maintain public clinic or hospital within area bounded by 8th and Lexington Avenues, and 100th and 125th Street Referred to the Cities Committee

Senate Int 644—Egbert, adds new section 168 Libor Liw, providing no person employed in a Stite hospital shall be allowed to work more than eight hours a day and eight consecutive hours shall constitute a day's work and not more than 40 hours a week's work Referred to the Labor Committee Tabled by conference

Senate Int 655—Buckley, Assembly Int

Sente Int 655—Buckley, Assembly Int 794—Reoux, for organization and government of counties, providing alternative forms except for counties in New York City, and for submitting one or more forms of government to electors, various forms being county president, counti manager, council-president, council manager and selective Referred to the Internal Affairs Committees No action by conference

Sente Int 666—Doyle, Assembly Int 835—Williams, provides for payment of compensation medical and hospital expenses of firemen by cities other than New York, towns and villages having a paid fire force, who are injured in or taken sick as a result of performance of duty. Referred to the Cities Committee in the Senate and General Laws Committee in the Assembly Approved by conference

Sente Int 685—McNaboe, adds new section to the Public Welfare Law, providing no veteran or member of veteran's family shall be denied relief by reason of acceptance of payment of adjustment service certificates Referred to the Finance Committee No action by conference.

Senate Int. 727—Howard, amends the Labor Law by providing 48 hours shall constitute a legal week's work, eight hours a legal day's work, and requiring one day rest in seven for all State employees employed by a State department, board, agency or council or by any institute including those engaged in care and guarding of person and property or performing nursing, kitchen or other service and those caring for public buildings and grounds. Referred to the Labor Committee. Tabled by conference.

Senate Int. 731—Wicks; Assembly Int. 836—Wadsworth; amends Chapter 798, Laws of 1931, by extending to April 1, 1936 life of Temporary Emergency Relief Administration. Referred to the Finance Committee in the Senate and the Relief and Welfare Committee in the Assembly. No action by conference.

Senate Int. 755—Coughlin, amends the Civil Service Law by prohibiting removal of veteran nurses except for incompetency or misconduct shown after hearing; also giving preference in case of abolished positions to veterans and exempt volunteer firemen, and relative to certification for their transfer. Referred to the Civil Service Com-

Senate Int. 764—Esquirol; Assembly Int. 919—E. S. Moran; amends the Insurance and Membership Corporations Laws, for formation of non-profit service indemnifying corporations whereby policy, holders shall be indemnified for amounts paid out for medical and surgical care and treatment and nursing and hospital care, directors to be selected from list of persons nominated by president of county medical society. Referred to the Insurance Commit-

Senate Int. 765—Esquirol; Assembly Int. 920—E. S. Moran, adds new section to the General Business Law, permitting a hospital supported in whole or part by public funds or by private subscriptions or which receives exemption from taxation under section 4, Tax Law, to employ physicians and surgeons under contract or salary arrangement for medical diagnosis and treatment of patients only when such patient is a public charge; in all other cases to be rendered to patients independently of other hospital charges and under contract between patient and physician. Referred to the Judiciary Committee in the Senate and the Codes Committee in the Assembly.

Senate Int. 800—Esquirol; Assembly Int. 889—McCreery;\ amends the Decedent Estate Law by providing damages recovered in action for negligence or wrongful act or default causing death of decedent, must

be exclusively for benefit of husband or wife and dependent children, instead of next of kin, and if none, then of decedent's parents, and if none, then of statutory disand making other changes. tributees, Referred to the Judiciary Committees.

Assembly Int. 796—Ehrlich, amends the Public Welfare Law by providing person in need of medical care other than hospital treatment shall be attended by his family physician or one of his own choice practicing in vicinity, who shall be employed by public welfare official, otherwise such official shall select the physician. Referred to the Relief and Welfare Committee. Approved by conference.

Assembly Int. 802-Lo Re, adds new section to the Public Welfare Law providing no war veteran otherwise dependent on public funds shall by reason of receiving payments on adjusted service certificates be deprived of home or work relief. Referred to the Relief and Welfare Com-

mittee. No action by conference.

Assembly Int. 814—Swartz, amends the Correction Law by providing a prisoner sent to a hospital because of sickness must be kept in custody of officials in charge of jail to which he is committed, instead of custody of chief officer of hospital. Referred the Penal Institutions Committee. Approved by conference.

Assembly Int. 833—Ostertag, amends the Labor Law by making 48 hours a legal week's work for all classes of State employees whether employed by a department, board, commission, agency, bureau or council or by an institution, including those caring for persons and property or performing nursing and other service, eight consecutive hours in any 24 shall constitute a legal day's work. Referred to the Civil Service Committee. Tabled by conference.

Assembly Int. 864—Hill, amends the Education Law by providing practice of medicine shall not be construed to prevent practice of chiropractic and authorizing Regents to issue licenses. Referred to the Education Committee. Opposed by conference.

Assembly Int. 865—Hill, adds new Art. 48-a, Education Law, for the practice of chiropractic; for a state board of examiners, and for the issuance of licenses. Referred to the Education Committee.

Opposed by conference.

Assembly Int. 893—Rossi, amends the Conservation Law by providing that applicant for a license must show that within a year immediately preceding he has submitted to test for color blindness and successfully passed it. Referred to the Conservation Committee.

Assembly Int. 963-Parsons, adds new

section to the Lien Law, giving public hospitals and private hospitals supported in whole or part by charity, a lien on rights of action, claims or demands of any person receiving treatment and maintenance on account of personal injuries received within one week prior to admission and as a result of negligence. Referred to the General Laws Committee.

Comment: This bill is identical with the one carried by Assemblyman Potter last year, and provides for hospitals alone.

Action on bills: Senate Int. 377, Quinnbringing poor person into State—3rd reading. Assembly Int. 30, E. F. Moran—jury duty—3rd reading.

Hearings: Feb. 11—Sen. Int. 563, Byrne—and Sen. Int. 12, Buckley—jury duty—hearing before Senate Judiciary Committee

Special Bulletin

February 14, 1936

Senate bill Int. 764—Esquirol; Assembly Int. 919—E. S. Moran (see digest of bill given below); to amend Sections 452 to 461, Insurance Law, 11, Membership Corporations Law, for formation of non-profit service indemnifying corporations whereby policy holders shall be indemnified for amounts paid out for medical and surgical care and treatment and nursing and hospital care, directors to be selected from list of persons nominated by president of county medical society, was reported out of committee in the Assembly on Thursday, February 13.

About the same time the Executive Committee, in session in New York, expressed its opposition to the bill on the ground that it is very definitely a voluntary health insurance scheme.

Some confusion may arise because there is an impression that the bill was introduced at the request of the State Society. The Executive Committee wishes to have this error corrected.

We are informed that the amendment is intended to permit of the duplication at Rhinebeck, Dutchess County, of the Brattleboro, Vermont plan of providing medical care to people of its community.

Will you communicate with your legislators immediately and inform them correctly regarding the bill. We must act promptly and unitedly if we hope to have this measure defeated.

Digest of Moran bill

Int. No. 919—In Assembly. An Act to amend the insurance law and the membership corporations law, in relation to non-profit service indemnifying corporations. Section 1. Article fourteen of chapter thirtythree of the laws of nineteen hundred nine, entitled "An act in relation to insurance corporations, constituting chapter twenty-eight of the consolidated law," as added by chapter five hundred ninety-five of the laws of nineteen hundred thirty-four, is hereby amended to read as follows:

Article 14

Non-Profit Hospital Service Plans

Section 452. Definition and scope of article. corporation heretofore or hereafter organized under the membership corporations law(s) of the state of * * * who become subscribers to said plan under a contract which entitled each subscriber to certain hospital care (new matter begins here); or any corporation heretofore or hereafter organized under the membership corporations law of the state of New York to be known as a non-profit service indemnifying corporation for the purpose of establishing, maintaining and operating a nonprofit service plan whereby policy holders shall be indemnified for amounts paid out or agreed to be paid out by them for medical and surgical care and treatment, nursing care and hospital care, under the terms and conditions of policies issued to them after the conditions and terms and premium rates of such policies have been approved by the superintendent of insurance, (new matter ends here) shall be governed * * * * * * same as old law. () old matter to be left out.

Section 433. Incorporation. 1. Persons desiring to form a non-profit hospital service corporation or a non-profit service indemnifying corporation shall incorporate * * * 2. At least a majority of the directors of such corporations, except a non-profit service indemnifying corporation, must at all times directors or trustees * * * (New matter begins here) 2-a. The directors of a non-profit service indemnifying corporation, chosen at the first annual and each subsequent meeting at which directors are chosen, shall be selected from a list of persons nominated by the president of the county medical society in which such indemnifying corporation is domiciled. (New matter ends here). 3. Every certificate of incorporation of a non-profit hospital service corporation and non-profit service indemnifying corporation is domiciled.

Section 454. Contracts. I. Any corporation subject to the provisions of this article may enter into contracts * * * 2. The rates charged by such corporation * * * 3. Al rates of payments to hospitals made * * * * 4. The provisions of this section shall not apply the a way the first register indeputibing corporation.

to a non-profit service indemnifying corporation.

Section 455. Annual reports of corporations.

Every such corporation shall annually * * *

Section 456. Examinations. The superintendent of insurance, * * *

Section 457. Acquisition costs. All acquisition

* * to such hospital service plans and
service indemnifying plans shall at all times be
subject to the approval of the superintendent
of insurance.

Section 458. Funds. The funds of any

THE TENTH ANNIVERSARY dinner dance of the American-Hungarian Medical Association was held at the Hotel Plaza on the evening of February 1. There was a large attendance, and the net proceeds were turned over to the welfare fund of the society for the aid of needy physicians and their families. The society is largely composed of men who were driven by the distress and unrest in Hungary after the war to seek new homes here. Some 150 to 175 settled in or near New York and others located elsewhere under the Stars and Stripes. Many could not speak English and had to take all kinds of jobs, some as laborers. More prosperous Hungarians already here aided the new arrivals and all are facing the future with hope and courage. The annual dinner dance is an occasion of reunion and good cheer.

Niagara County

THE PHYSICIANS employed by the city of Niagara Falls are opposing the proposal of the Niagara County Medical Society that welfare patients select their own doctors. Dr. Frederick Leighton, spokesman for the city physicians, told the city council the plan would cost twice that of the present system. Dr. R. H. Sherwood, President of the Eighth District Branch of the State Medical Society, and other physicians, argued that the matter ought to be decided on the basis of service given and not merely on economy.

Dr. LYMAN H. WHEELER has been appointed city physician and health officer of Lockport.

Dr. A. Wilmot Jacobson of Buffalo spoke on "Endocrine Disturbances in Children," at the meeting of the Niagara County Medical Society at the Cataract House, Niagara Falls on Feb. 11.

Onondaga County

Addresses were given at the meeting of the Onondaga County Medical Society on Feb. 4 by Dr. Lester R. Mellor, Dr. Harry J. Brayton and Dr. Edgar M. Neptune.

Queens County

NEARLY 150 DOCTORS attended the annual dinner of the Long Island City Medical Society at the St. Moritz Hotel, Manhattan, on Jan. 30. The dinner marked the seventieth year of the organization.

Dr. WILLIAM BIERMAN, director of physical therapy at Beth Israel and Mt. Sinai Hospitals, discussed fever therapy

induced by physical means and recent advances and therapeutic indications on Feb. 7 before the Queens Medical Society at Forest Hills.

Rensselaer County

Dr. John F. Connor was elected president of the medical and surgical staff of the Leonard Hospital at Troy at the annual dinner and meeting of the staff on Feb. 8.

Dr. C. W. Hamm was chosen vice president and Dr. Joseph P. Lasko, secretary-treasurer.

Steuben County

Dr. Leon M. Kysor was re-elected for the tenth time to be president of the Board of Managers of the Steuben County Laboratories at its annual meeting in Bath.

atories at its annual meeting in Bath.
Dr. W. W. Bachman of Bath was reelected vice-president, Dr. H. B. Smith of
Corning re-elected secretary.

Suffolk County

THE MEETING OF THE Suffolk County Medical Society at the Old Oaks Hotel in Patchogue on Jan. 29 was devoted to a discussion of the state pneumonia campaign. Dr. Jesse G. M. Bullowa was the chief speaker.

Warren County

DR. CONRAD R. HOFFMAN, of Glens Falls, who died on Feb. 9 at the age of fifty-five, was president of the Glens Falls Academy of Medicine, Fellow of the American College of Surgeons, Fellow of the A.M.A., and former President of the Warren County Medical Society.

Westchester County

DR. CLARENCE O. CHENEY, Professor of Psychiatry in the College of Physicians and Surgeons of Columbia University and Director of the New York State Psychiatric Institute and Hospital at 722 West 168th street, has been appointed Medical Director of Bloomingdale Hospital at White Plains. Dr. Cheney was president of the New York Society for Clinical Psychiatry in 1934 and 1935, and is now president of the American Psychiatric Association. He has been chairman of its board of medical examiners since 1933. He is Associate Editor of the American Journal of Psychiatry and of the Psychiatric Quarterly. He is editor of the book "Outlines of Psychiatric Examinations."

Medicolegal

LORENZ J. BROSNAN, ESQ.

Counsel, Medical Society of the State of New York

Healer Found Guilty of Illegal Practice of Medicine

In a recent prosecution based upon charges of the unlawful practice of medicine by an unlicensed person, the Court of Special Sessions of New York City in finding the defendant guilty handed down an interesting decision.*

The defendant in the case was charged under Sections 1250, 1251, and 1263 of the Education Law of the State of New York with practicing medicine without a license and specifically with having treated one Gertude D— who had investigated the case.

Upon the trial the said investigator testified that she had gone to the office of the defendant on two occasions and that on the first visit she had told him that she was suffering from pain under the arch of the foot and in the calves of her legs. According to her testimony the defendant had undertaken to treat her for her complaints by removing her shoe and pressing her foot with his thumb under the arch until she had told him to stop by reason of the pain that he caused her. He had also rubbed the calves of her legs for some time. She further testified that on the second visit she complained to the defendant as before and also told him that she was suffering from headaches and nervous disorders, and again he undertook to treat her. He again proceeded to exercise pressure under the arches of her feet and he also told her that he would give her a treatment for headache and for nerves. In doing so he stood behind the chair in which she was seated and pressed his hands on her head for about five minutes and also pressed his hand around her neck and rubbed her back from the neck down to the waist, at the same time giving her instructions as to the position she should assume and directing her as to proper breathing. The investigator testified that she had been given a card by the defendant which read as follows:

Fallen Arches Curel
Without Surgery or Medical Apphrations
Walk with ease without arch supports
or Special Shoes
Results Guaranteed
J. H. Hotel II—West Street
New York City
Findicott Room

That card was introduced in evidence, and also another card which bore the defendant's

name, address, telephone, and office hours, and underneath his name bore the word "Healer" and in the lower left hand corner "By Appointment."

The prosecution also offered in evidence as one of its exhibits a receipt likewise bearing the name of defendant, his telephone number, room number, address, the date—December 15, 1934—and the words "to Mrs.—25.00 full treatment Money refunded

if not satisfied Paid c/o 3.00."

On the trial the defendant testified that his treatment which formed the basis of the charges against him had been by prayer, by the placing of the tips of his fingers over the outer garments of the subject over the parts of the body affected by pain. He claimed that he had exerted very slight pressure, if any, in administering this form of treatment. He also claimed that at the time he had treated the investigator he had had before him a picture of Christ and that he had specifically informed her that he was not curing her but that the cure was by the power of God exerted through the defendant. He denied that he had employed rubbing or massage but admitted that he had placed the tips of his fingers upon the garments of the investigator. His defense also included testimony that he was the president and pastor of a church which had been formed about three years previous under the name of The Church of God and that that name had been changed to The First Church of the Divine Revelation and subsequently to The Christian Church of the Divine Revelation. church apparently consisted of twelve members including himself and his wife, offered in evidence upon the trial the minutes of certain meetings of the church which appeared in a book written in his own handwriting. He also admitted upon examination to have received fees from the investigator and from others.

The defendant made a motion upon the evidence for an acquittal relying primarily on the argument that the practices that he had engaged in were exempted from the provisions of the Medical Practice Act by the clause in Section 1262 of the Education Law which reads as follows:

"This period of all trued to prevent or tenets of any church,"

^{*} People v. H----, 157 Misc. 592.

He cited as authority for his position an earlier case—People v. Cole, 219 N. Y. 98, in which it was held that offering prayer for the healing of disease in accordance with the recognized tenets of the Christian Science Church did not constitute the illegal practice of medicine.

The Court, however, concluded that under the circumstances as shown by the testimony upon the evidence upon the trial the defendant was not entitled to the exemption contained in Section 1262 of the Education Law permitting the practice of religious tenets of a church, since the defendant's church appeared to be merely a cloak or screen for the practice of medicine by him in violation of the law. The court, therefore, denied his motion for an acquittal and found him guilty as charged. In the court's opinion it stated in part as follows:

The court is of the opinion that defendant's card which he gave to the investigator, which bears the name of the defendant, the address, telephone and room number, with the words "Fallen arches cured; Without surgery * * * or special shoes; Results guaranteed," together with the treatments testified to by defendant, constitutes a holding out as being able and an offer or undertaking to diagnose, treat, etc., in violation of Section 1250 of the Education Law.

This brings us to the question, although not necessary to this decision, as to whether defendant comes within the exception contained in Section 1262, "the practice of the religious tenets of any church." It may be pointed out that in the present case as well as in the case of People v. Cole (supra) the treatment was for a consideration.

As to the character and extent of the treatments, the testimony of the investigator finds corroboration in the admission of defendant that he applied pressure, even though slight, to the arch of the foot and placed the tips of his fingers against the outer garments of the body. The admissions of defendant, including People's Exhibit 3, above referred to, justify the acceptance of the People's version as to the character and extent of the treatments. If we are correct in this, defendant cannot be exempted by the claim that he was engaged in the practice of the religious tenets of a church. Moreover, as to the church in question, the evidence supports the view that it is but a cloak or screen for the practice of medicine by defendant in violation of the statute. This view is borne out by an examination of the church minutes, its almost negligible membership, defendant's experience and background, and the manner in which he mingled the operations of the church and his office practice. Upon a consideration of all the evidence we are unable to escape the conclusion that defendant's practices are in violation of the

Complaint Concerning Prescription for Dermatitis

A middle aged man consulted a physician

with respect to complaints of rash on his legs, which was found to be a mild form of dermatitis. The doctor wrote out a prescription calling for ammoniated mercury ointment. He referred the patient to another doctor for the purpose of having a Wassermann examination taken.

The patient left the first doctor's office but did not take with him the prescription blank. A short time later the first doctor noticed that the prescription had been left behind and called up the second doctor on the telephone and told him of the prescription which he had previously written. The second doctor decided to give the patient a prescription of bichloride of mercury instead of ammoniated mercury ointment, and after examining the patient he gave him such a prescription.

Thereafter the Wassermann proved to be negative. Neither of the doctors ever

attended the patient again.

Subsequently an action was brought against both of the doctors and against a drugstore and its pharmacist, charging all of them with having been negligent in connection with the issuance and filing of the prescription, the claim being that the plaintiff's rash was increased rather than cured by the substance that was prescribed.

The case came on for trial in the Supreme Court as a jury trial and at the close of all the testimony the complaint was dismissed upon motion as to the first doctor. The issues in the case were submitted to the jury as to the remaining defendants and the jury determined that there was no cause of action against any of them.

Claimed Negligence Upon Death of Fetus

A physician who specialized in obstetrics attended a woman about forty years of age during her delivery. She gave birth to a normal child and had an uneventful recovery.

She returned to the doctor some time later and told him that she thought she was pregnant and complained that she had been bleeding. He examined her and found that she was about four months pregnant and gave her advice as to rest in bed and told her to return about two weeks later for further examination, but she did not return for over two months. He found that the pregnancy had not progressed normally and that her uterus was smaller. He kept her under observation for a month and he found then that her uterus was still smaller. He decided that most of the products of conception had been absorbed and that the re-

mainder of the same would probably absorb

necessary at that time

The doctor advised the patient of these conclusions and told her to keep in touch with him from time to time. She failed to do so and the doctor never heard from her again until some time later when he was served with a summons and complaint starting a malpractice action against him

The complaint charged that the defendant failed to discover a dead embryo in the uterus of the plaintiff and that he failed to take any steps to relieve the condition

The case came on for trial and when the plantiff's attorney found that the doctor was ready to defend the case he voluntarily discontinued the action, thereby admitting that he was unable to prove any cause of action against the doctor

Across the Desk

"Look at the D- Thing Now!"

impossible

THE CHARCI IS now made that after its long rough and tumble fight for life, the Copeland bill lits been "so bridly clawed by Senitors, chevied by advertising and publicity mediums and local interests" that it is "in many respects even weaker than existing legislation." This attack on the bill appears in The Consumer, published by the Consumers Division of the Department of Labor at Washington. It is now "as nearly futile and innocuous as the most resourceful drug manufacturer, advertiser, and salesman could desire" declares the American Journal of Public Health, and it should be "altered

or voted down" And the bill is also raked at the sume time by a hot broadside in the AMA Journal from the AMA Bureau of Legal Medicine and Legislation, which declares some of its provisions so bad that "they open the door wide for fraud and danger"

For example, the measure proposes to penalize misbranded drugs and devices and to ban false or misleading advertising. But who is to say whether the label and the advertisement is false or true? According to the bill it is to be decided by an appeal to "demonstrable scientific facts or sub stantial and reliable medical or scientific opinion" That sounds good, but when we come to look into it a bit, we discover that "medical opinion" is defined to mean the opinion of "the legalized professions of the healing art"-a phrase so vague that some say it would include 'the opinions not only of doctors of medicine and of dentists, pharmacists and registered nurses, but the opinions also of chiropractors, osteopaths, naturopaths, optometrists, chiropodists, and midwives, and in some states of other price titioners, according as one or another class is licensed by the laws of the state" In credible? Not at all. That is the sober view of the AMA Bureau of Legal Medicine
It is easy to imagine millionaire makers
of fake nostrums parading plenty of silk
Initial professors of 'the healing art' before
ignorant juries and "getting away with
murder" under this wide open clause Successful prosecution would become almost

As Water-tight as a Colander

As if that were not enough, this kindly measure provides that the Secretary of Agriculture is not required to prosecute "mmor violations of this act" whenever he deems 'written notice or warning" sufficient As this decision will be in the hands of subordinate officers receiving small salaries, the danger needs no explanation too in case of prosecution, interminable delays may ensue, for the offender must first receive a notice and have a hearing, receive notice of the decision and have a second hearing if necessary, and then be prosecuted A dealer, furthermore, who handles misbranded articles and advertises them "in good faith" and in ignorance of illegality cannot be punished if he gives the name and address of the person from whom he bought them The amount of "good frith" and ignorance that will be brought into court by retail dealers in nostrums will undoubtedly be colossal Just how the government is going to convict anybody under this highly porous measure is a prize puzzle. It seems about as watertight as a colander

The blatant advertising of quack remedies for dangerous diseases was supposed to be hard lit by the original Copeland bill, but by some drastic dentistry its teeth have nearly all been pulled. It formerly contained a list of forty two aliments in which advertising was prohibited or restricted. There

are thirty-four in the similar Canadian drug act. Yet the present Copeland bill forbids advertising claims only in regard to Bright's disease, cancer, tuberculosis, infantile paralysis, venereal diseases, and heart and vascular diseases. It would certainly be interesting to know just how and why the list was whittled down from forty-two to six. A lot-of strong language has come from Washington against the "chislers." What about the whittlers?

Plenty more could be said, but this is more than enough to show up the character of the measure that may soon be rushed through onto our statute books. passed the Senate and may be reported to the House at any time. To pass this inadequate and futile bill will expose the country to grave dangers, as pointed out by the A.M.A. Legal Bureau: It will not protect the consumer, it will throw obstacles in the way of effective prosecution, it will exclude any effective law from the statute books for years to come, and it is likely to be taken as a pattern for state laws. All in all, would it not be better to kill this emasculated, deformed, legislative infant in its cradle-a "mercy-killing"-and hope for a healthier specimen next time?

Few are Starving, But —

While it is true that few people are dying of hunger in our industrial slump, investigation shows that family rations have been widely cut down to a point where vitality is sapped and resistance to disease sinks below the danger line. The health of low-income families, and especially of the little children, may be permanently impaired. The U. S. Public Health Service has just published the findings of an inquiry into the diets of low-income groups in New York City, five northern and one southern industrial cities, a southern cotton-mill area, and a soft-coal region.

What will interest us more especially are the conditions exposed in New York City and in the northern industrial towns (one of them Syracuse) which no doubt typify the manufacturing cities dotting this state. Miss Dorothy G. Wiehl, who writes the report, believes in fact that the data "are fairly typical of low-income families of the large industrial cities in the north," though local observation and experience may convince observers that some of our towns are better off, and some perhaps worse. The data

were gathered in 1933, and allowance should be made for any rise or fall since.

Teetering on the Brink of Danger

To weigh the danger of diets that are too scanty, the investigators have adopted the estimate of the Bureau of Home Economics of the Department of Agriculture, that 3,000 calories a day is an "adequate" energy supply per adult male and 2,700 calories is a "reasonable minimum." Women and children are rated to correspond, and the entire family is then evaluated accordingly. Families getting less than the "adequate" supply of calories are obviously teetering on the brink of danger, and families getting less than the "reasonable minimum" are definitely in peril.

"How much meat and fish did your family eat last week?" was one of the questions put by the investigators. "How much potatoes, eggs, bread, cereals, fats, sugar, syrup, jelly, fresh and canned vegetables and fruits, dried legumes, dried fruits, milk?" "What is the weekly income of the family?" "With all the inquiries that are probing into our family life, the proverbial goldfish will soon be a paragon of privacy in comparison.

But the patient poor answered all these questions, and gave the data necessary to tell us how they are faring. Not very well, according to the tables of figures and the lines that twist and turn this way and that on the charts for "potatoes," "eggs," etc. The families are sorted out, like big and little apples, into those on home relief, on work-relief wage, on weekly pay of less than \$2 per member of the family, less than \$3, less than \$4, less than \$5, all the way up to \$6 or more.

In New York City half the families on home relief were found living on a diet below the danger line, and three-quarters of those on work-relief wage were in the same plight. So were seventy per cent of the families earning less than \$3 per week per member, and sixty per cent of those carning less than \$4 per member. And more than half the families investigated were found to be below the \$4 class.

Milk is so essential to children that special paragraphs in the report are given to it. Sherman is cited as saying that milk "is the surest means of providing an adequate intake of calcium well-balanced with desirable amounts of phosphorus, of protein, and of the vitamins." It is encouraging to find

that in New York City the average milk consumption in every group, even the poorest, was above the minimum considered desirable, and in the higher groups it was nearly up to the 'adequate' mark

In Smaller Manufacturing Towns

Turning to the five northern industrial cities (Baltimore, Cleveland, Detroit, Pittsburgh and Syracuse) which are supposed to give a line on northern manufacturing towns in general, we are told that more than half of those on rehef and of those examing less than \$3 a week per member of the family were on a diet below the danger line and some of these families reported very acute food shortages." It is in such families that disease harvests easy victims, and the physician finds his efforts sadly hampered by the fact that his patient has little or no resistance or recuperative power.

Other surveys have shown a clear relation between income and illness—the less the one, the greater the other—and who can doubt that impoverished diet plays its part in the sinister ratio? Figures have proved that families with no employed workers have about fifty per cent more cases of disabling illness than those with a full time worker.

Sickness and denth do not writ for actual starvation to do its work. A gradual, insiduous breaking down of the natural defenses is enough, and any one of half a dozen diseases will leap in and seize its victim. That is the situation that exists all over our land today, and the longer the depression lasts the worse it grows the lower vitality ebbs, the weaker resistance becomes. The best medicine for it will be whirring wheels, smoking chimneys, rusting pay envelopes. The doctor who can bring that remedy, be he political, financial or industrial, will be the man of the hour

A Task Worth While

Part of the blame for the slump in milk sales during the depression should be laid to birth control, said Health Commissioner John L. Rice the other day, addressing a meeting of milk producers. This suggests a new slant for the milk advertising campaign Romance, mother-love, the bibble of little voices, can give the ads a fivor they have lacked thus far. The birthrate has sunk from 35 per 1,000 at the turn of the century to 13 per 1,000 Advertising

is mighty Can it boost the rate to its former level? Here is a task worth while

THE PAYMENT OF THE veterans' adjusted compensation will give some of them the ability to settle the doctor's bill—or to buy a second-hand car and take a vacation in Florida. Which will it be? Two guesses are allowed

A Good Figure to Slenderize

PRELIMINARY FIGURES from the Census Bureau state that there were over 96,000 first admissions to the 467 mental hospitals in the United States in 1934. What this tragic figure brings to mind is the probable fact that 96 000 more will be admitted this year, and another 96,000 next year Where are those prospective victims now? Is it possible to locate and save them while their mental troubles are in the incipient stage? Tew things are sadder than a wrecked and disordered mind and while we are busy in our splendid work of preventive medicine for physical ills, let us help the psychopathic experts who are tackling the problem of dementia precox, and the school physicians and educators who are laying plans to dis cover and aid little minds that do not tick quite right Wouldn't it be inspiring to see that dread figure of 96 000 dwindle grace fully downward year by year?

"Doctor, Shall I Study Medicine?"

WHAT SHALL THE DOCTOR reply when some fine young fellow of his acquaintance asks his advice about studying medicine? An Indiana doctor, faced with this question, referred it to Dr Olin West, Secretary of the AMA, and Dr West, in his reply. stated plainly the financial risks of a medical career, but also said that if the young man had all the good qualities he would no doubt succeed Isn't there also another consideration? Some men have it "in their blood' to be physicians. For them there is no other life Just as the artist must print and the singer must sing, so they must heal the sick They would rather be poor in the practice of medicine than rich in anything else Are they not entitled to their chance? The man who thinks of medicine as a 'good business" may well be told to close the door as he goes out, but the one who thinks of it as the sailor thinks of the stars is the man who is going to help make the medicine of the future what we all want it to be

The Physician's Income Tax

General instructions for computing the Federal income tax are printed on every income tax blank, but the provisions which affect doctors are discussed in more detail in the A.M.A. Journal of January 11. We quote and condense the most important paragraphs below. Any additional information desired can be obtained at local internal revenue offices.

Gross and Net Incomes: What They Are

Gross Income.—A physician's gross income is the total amount received during the year for professional services, regardless of when services were rendered, plus money received as profits from investments and speculation and other sources.

Net Income.—Certain professional expenses and the expenses of carrying on any enterprise in which the physician may be engaged for gain may be subtracted as "deductions" from the gross income, to determine the net income. An "exemption" is allowed depending on marital status during the tax year. These matters are fully covered in the tax blanks.

Earned Income.—In computing the normal tax, but not the surtax, there may be subtracted from net income from all sources an amount equal to 10 per cent of the earned net income, except that the amount so subtracted shall in no case exceed 10 per cent of the net income from all sources. Earned income means professional fees, salaries, and wages received as compensation for personal services, as distinguished from receipts from other sources.

The first \$3,000 of a physician's net income from all sources may be regarded under the law as earned net income, whether or not in fact earned within the meaning set forth in the preceding paragraph. Net income in excess of \$3,000 may not be claimed as earned unless it in fact comes within that category. No physician may claim as earned net income any income in excess of \$14,000.

Deductions for Professional Expenses

A physician is entitled to deduct all current expenses necessary in carrying on his practice. The taxpayer should make no claim for the deduction of expenses unless prepared to prove the expenditure by evidence. The following statement shows what such deductible expenses are:

Office Rent.—Office rent is deductible. If a physician rents an office for professional purposes alone, the entire rent may be deducted. If he rents a building or apartment

for use as a residence as well as office, he may deduct a part of the rental proportionate to the space used for professional purposes. To entitle him to deduction he must have an office there, with regular office hours. If a physician owns the building he cannot charge himself with "rent."

Office Maintenance,—Expenditures for office maintenance, as for heating, lighting, telephone service and the services of at-

tendants, are deductible.

Supplies.—Payments for supplies for professional use are deductible. Supplies may be fairly described as articles consumed in the using; for instance, dressings, clinical thermometers, drugs and chemicals. Professional journals may be classified as supplies, and subscription price deducted. Amount expended for books, furniture and professional instruments and equipment. "the useful life of which is short," generally less than one year, may be deducted; but if such articles have a more or less permanent value, their purchase price is a capital expenditure and is not deductible.

Equipment.—Equipment comprises property of a more or less permanent nature. It may ultimately wear out, deteriorate or become obsolete, but it is not in the ordinary sense of the word "consumed in the using."

The cost of equipment, such as is described above, for professional use, cannot be deducted as expense in the year acquired. Examples of this class of property are automobiles, office furniture, medical, surgical and laboratory equipment of more or less permanent nature, and instruments and appliances constituting a part of the physicians professional outfit, to be used over a considerable period of time, generally over one year. Books of more or less permanent nature are regarded as equipment and the purchase price is therefore not deductible.

Although the cost of such equipment is not deductible in the year acquired, it may be recovered through depreciation deductions taken year by year over its useful life, as described below.

No hard and fast rule can be laid down as to what part of the cost of equipment is deductibe each year as depreciation. As fair rates of depreciation, the following have been suggested: automobiles, 25 per cent a year; ordinary medical libraries, x-ray equipment, physicial therapy equipment, electrical sterilizers, surgical instruments and diagnostic apparatus, 10 per cent a year; office furniture, 5 per cent a year.

Medical Dues.—Dues paid to societies of a strictly professional character are deductible. Dues to social organizations, even though limited to physicians, are personal expenses and not deductible

Postgraduate Study —The Commissioner of Internal Revenue holds that the expense of postgraduate study is not deductible

Traveling Expenses — Traveling expenses, including amounts paid for transportation, meals and lodging, incurred in professional visits to patients and in attending medical meetings for a professional purpose, are deductable.

Automobiles —Payment for an automobile is a payment for perminent equipment and is not deductible. The cost of operation and repair, and loss through depreciation are deductible. The cost of operation and repair includes the cost of gasoline, oil, tires, insurance, repairs, garage rentil (when the garage is not owned by the physician), chauffeurs' wages, and the like

If an automobile is used for professional and also for personal purposes—as when used by the physician partly for recreation or so used by his family—only so much of the expense as arises out of the use for professional purposes may be deducted

What has been said with respect to auto mobiles applies with equal force to horses and vehicles and the equipment incident to their use

Miscellaneous

Laboratory Expenses—The deductibility of the expenses of establishing and maintaining laboratories is determined by the

same principles that determine the deductibility of corresponding professional expenses Laboratory rental and the expenses of laboratory equipment and supplies and of laboratory assistants are deductible when under corresponding circumstances they would be deductible if related to a physuran's office

Losses by Fire or Other Causes—Loss of and damage to a physician's equipment by fire, theft or other cause, not compensated by insurance or otherwise recoverable, may be computed as a business expense and is deductible, provided evidence of such loss can be produced. Such loss is deductible, however, only to the extent to which it has not been made good by repair and the cost of repair claimed as a deduction.

Insurance Premiums — Premiums paid for insurance against professional losses are deductible. This includes insurance against drinages for alleged impractice, against liability for injuries by a physician's automobile while in use for professional purposes and against loss from theft of professional equipment and damage to or loss of professional equipment by fire or otherwise. Under professional equipment is to be included any automobile belonging to the physician and used for strictly professional purposes.

Expense in Defending Malpractice Suits—Expenses incurred in the defense of a suit for malpractice are deductible as business expense

Books

RECEIVED

[Acknowledgment of all books received by the JOURNAL will be made in this column and this smill be deemed by us a full equivalent to those sending them. A selection from this column will be made for review a dictated by their ments or in the interests of our readers?

A Textbook of Bacteriology By Thurman B Rice, M D Octavo of 551 pages, illustrated Philadelphia W B Saunders Com pany, 1935 Cloth, \$500

The Stomach and Duodenum By George R Lusterman, MD, & Donald C Balfour, MD Octavo of 958 pages, illustrated Philadelphia W B Saunders Company, 1935 Cloth, \$10 00

Diseases of the Skin By Frank C Knowles, M D Third edition Octavo of 640 pages illustrated Philadelphia, Lea & Febiger, 1935 Cloth, \$6 50

Tumors of the Urinary Bladder. By Edwin Beer, M.D. Octavo of 166 pages illustrated Baltimore, William Wood & Company, 1935 Cloth, \$350

The Compleat Pediatrician Practical, Diagnostic, Therapeutic and Preventive pediatrics By W C Davison, M D Octavo

Durham Duke University Press, 1934

Cloth \$3 75

Surgery Queen of the Arts and Other Papers and Addresses By William D Haggard, M D Octavo of 389 pages, illustrated Philadelphia W B Saunders Company, 1935 Cloth \$\$50

A Terminology of Operations of the University of Chicago Climics By Hilger P Jenkins, M D Duodecimo of 99 pages Chicago, University of Chicago Press, 1935 Paper, §1 00

Prescription Writing and Formulary By Charles Solomon M D Octavo of 351 pages illustrated Philadelphia, J B Lippincott Company, 1935 Cloth

Behavior Development in Infants A Survey of the Literature on Prenatal and Post natal Activity 1920-1934 By Evelyn Dewey Octavo of 321 pages New York Columbia University Press, 1935 Cloth, \$3 50

REVIEWED

The Popular Practice of Fraud. By T. Swann Harding. Octavo of 376 pages. London: New York, Longmans, Green & Co., 1935. Cloth, \$2.50.

A refreshing change from the old scare head type of muck raking. Mr. Harding holds the mirror up for all of us to take a look, and what a sorry reflection we find, for we are all there, both the just and the unjust. All suckers, and we smile to show that we like it. Even the hard boiled M. D.'s who insist in taking our "stuff" ethically, and how!

We are all frauds, only some of us are more astute than the rest, who, in their turn, are taken in by those still more slick. We take all of our emotions, from fear of death, to fear of ridicule or personal appearance, and we pay the slick boys \$700,000,000 a year to play on these emotions, and we like it! And we clamor for more.

Most of us are not geared for the Twentieth Century, except chronologically, and we fall for the same old stuff, only it is served up to us as a pseudo-science, with a patter of vitamins, restored vigor, how bad our bodies smell, or the things even our best friends hesitate to tell us. The bogey of fear is worked overtime as a selling agent. The cancer and diabetic ghouls are still reaping a fruitful harvest; the more preposterous the claims, the bigger the financial reward. Madame's bosom can be made large or small as desired, by the same cream, applied with reverse "English"!

Why try to save these morons from themselves by the enactment of prohibitory laws? This is the nice question the author evolves after a resume of the high pressure advertising methods which creates a market to sell worthless truck to a people who do not need it, but who lack the mentality to resist the honeyed "sales talk". He develops an ironic humor which is as inimitable as it is naive. He also stresses the need of a real "food standard," statutory, if need be, as a remedy, and this is self evident.

The author extends his sympathetic respects to the harassed Federal agents who attempt to enforce the present inadequate law, and reveals how a richly endowed advertising lobby, with the patent medicine interests, are adroitly thwarting every effort that is being made, to whip them into line, and intersperse at least a morsel of truth, into their bombastic claims. When the millions of plunder lost to these same interests by this type of legislation are considered, their loud cries of "government interference in legitimate business" can be intelligently discounted.

In conclusion, let us agree with the Psalmist, that verily "All is indeed vanity", but that nobody ever dreamed of the millions that were in it, till "legitimate advertising" showed the way. A good book, well written; let us read it well, and profit.

THOMAS F. NEVINS

General Ophthalmology: A Short Treatise for Students and Practitioners. By S. A. Agatston, M.D., 16mo. of 170 pages. New York, John L. Schoenfeld Company, 1935. Cloth, \$2.00.

This newest handbook on ophthalmology has certain features which distinguish it from other well-known works:

a. It is small, and can easily fit into a vest-pocket.

b. It is comprehensive, and reviews the essential features of practical ophthalmology in systematic form.

It should not, however, be confused with the quiz compend designed for undergraduates. It does, however, fill a distinct niche in ophthalmological contributions, for by its summary considerations of the salient features of practical ophthalmology, it serves as a ready-reference guide to the post-graduate medical student and to the busy physician who may be groping for a precise diagnostic term or a concise description or a differential diagnosis.

EMANUEL KRIMSKY

Orthopedics for the Teachers of Crippled Children. By Samuel W. Boorstein, M.D. Duodecimo of 120 pages. New York, Aidem Publishing Company, 1935. Cloth, \$1.50.

As the title of the book explains, it is intended primarily for the use of the teacher of the crippled child. The effect of psychic influence upon these unfortunates can be fully appreciated only by those who have actually seen the results of such influence, both good and bad. This is well brought out by the author, drawn from an obviously very extensive experience. Several opinions expressed in the book, particularly in regard to electrotherapy, are somewhat at variance with those usually accepted, and must be regarded as the result of the author's own observations. The review of disabling conditions found in children is very complete and descriptions are well explained for the guidance of the lay aide. The list of cripples who have attained unusual prominence in world affairs leaves the reader rather envious of those of unsound body. The book on a whole is of considerable merit, and will well repay the brief time required for its perusal.

JEROME WEISS

Aids to Surgery. By Cecil A. Joll, M.D., and Reginald C. B. Ledlie, B.S. Sixth edition. 16mo of 612 pages, illustrated. Baltimore, William Wood & Company, 1935. Cloth, \$2.75.

This volume is the sixth edition of a most remarkable compendium of surgery. Completeness and terseness are its outstanding qualities. It is thoroughly up to date, sparsely illustrated with diagrams, every one of which is to the point. As a quick reference book or as a textbook for pre-exam studies, it has no equal.

GEORGE WEBB

The Spleen and Resistance. By David Perla, M.D., & Jessie Marmorston, M.D. Octavo of 170 pages. Baltimore, Wilkins Company, 1935. Cloth, \$2.00.

A professor of Pathology in one of our medical schools once asked one of his medical students to recite the functions of the spleen. Fearing admission of ignorance, the student replied that he did know it at one time but had forgotten it, whereupon the professor sarcastically exclaimed: A great calamity has befallen the universe. The only man in the world who knew the function of

the spleen has forgotten it!

The spleen has stood jocular comment and has served as a target for medical humor for many years. With recent advances in our knowledge of the Reticulo-Endothelial system, however, it is safe to predict that the spleen will in the near future, occupy the same elevated position as do some of the other viscera concerning which we think we know more. A great step in this direction has been made by the recent publication The Spleen and Resistance by Drs. Perla and Marmorston. These authors are deserving of much complimentary comment for not only did they dare to tread, but also for treading so well on a field "where angels feared to tread."

Only one who is acquainted with splenic difficulties, can appreciate the tremendous task involved in a critical review of all the contradictory and ambiguous literature which has accumulated about the spleen. Such a review has been excellently prepared by the authors of this book, giving a proper evaluation to the various publications on

this subject.

Although the authors deal primarily with the relation of the spleen to infection, the book contains several tangential discussions which are refreshing and illuminating. Thus, in the first two chapters which are brief but precise, a delightful exposition of the authors' knowledge of the comparative anatomy and histology of the spleen is included, followed by a discussion on the significance of the reticular cells in the development of the spleen.

In few, if any, of the available treatises on this subject is there to be found so systematic and scientific a presentation of the changes that occur in the spleen in various infections as is found in this book

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on the spleen and resistance.

In the subsequent chapters dealing with the role of the spleen in antibody formation, the affect of splenectomy on natural resistance and the relation of the spleen to acquired resistance in latent infection, and compensatory changes following splenectomy, one begins to feel the need for more clinical data which the authors might have provided to make the book more complete. This is especially true of the discussion on compensatory changes following splenectomy.

Experimental workers should find this book especially valuable, since the author deals in more or less complete detail with the experimental phases of the role of the spleen in the above mentioned conditions.

The authors own experimental researches on the relation of copper to resistance and splenic function are discussed, as are also the interpretations of old and recent theories on the roll of the spleen in iron metabolism and its relation to hemoglobin production. The authors' contribution on this phase of splenic function are extremely interesting and should prove to be of practical value.

The summary found at the end of each chapter as well as the final resume are deserving of special comment. Here the authors have shown utmost consideration for the busy man who wishes to get the gist of everything he reads in a summary form.

SILIK H. POLAYES

Mouth Infection: Clinical Histories. By Oliver T. Osborne, Octavo of 119 pages. New Haven [Oliver T. Osborne], 1934. Cloth, \$2.00.

This little book of case histories, which occurred in a prominent physician's general practice, is a very good reminder of the importance of mouth infection in relation to the complete examination and care of the patient.

The author draws a number of interesting conclusions from these cases. Of these a good example is the following, glycosuria can be and perhaps true diabetes mellitus may be caused by mouth infection. With the excellent wealth of material at his disposal, it is to be regretted that more complete histories and careful laboratory data are not included so as to clearly justify the conclusions, which are in the main reliable and true.

The medical and dental professions should be thankful to the author for this added attempt at closer cooperation between medicine and dentistry.

It should be read by every careful physician and dentist. OSCAR RODIN

Les Hallucinations Verbales et la Parole. By Daniel Lagache, M.D. Duodecimo of 184 pages. Paris, Félix Alcan, 1934. Paper, 18 fr.

This is a concise little monograph on the present state of psychiatric thought in France concerning the basis and function of auditory hallucinations. Following a literary discussion of the French psychiatric classical school on this subject, particularly with reference to Seglas and his pupils, the author approaches the problem of hallucinations from the biological and dynamic point of view as contrasted with the mechanical and association tendencies of the last century. This indicates that the psychological modes of thinking have penetrated into France, also. Nothing essentially beyond Mourgue and others is presented, and the book is primarily a reference for specialists in this country. SAM PARKER

Clinical Laboratory Methods and Diagnosis. By R. B. H. Gradwohl, M.D. Quarto of 1028 pages, illustrated. St. Louis, C. V. Mosby Company, 1935. Cloth, \$8.50.

This book represents a collection of information which is very widely comprehensive in the field of the practice of laboratory methods and diagnosis. All phases of laboratory activity are discussed from the point of view of those whose medical home is in the laboratory.

Any attempt to describe the contents of the book in detail would require much more time and space than any reviewer has available. With the few criticisms that might be made such as the irritating frequency of the use of the personal pronoun and the omission of methods for the determination of cholesterol esters and the failure to include a description of bone marrow puncture, the book as a whole is an admirable

It is profusely, aptly and well illustrated. It should prove of great value especially to the laboratory man, as well as to anyone interested in any field of medicine.

MAX LEDERER

Aids to Ophthalmology. By N. Bishop Harman, M.A. Eighth edition 16mo of 242 pages, illustrated. Baltimore, William Wood & Company, 1935. Cloth, \$1.25.

This compend on ophthalmology is now in its 8th edition. While it is comprehensive for the needs of the medical student, it fails in providing certain indispensable features to be found in such popular books as May's, namely, vivid illustrations, and a more personal approach. Nevertheless, as a supplement to a course on that subject it is splendid.

The author is well known for his ingenious contributions and methods, which are illustrated throughout the text. He disapproves of lachrymal probing as a means of overcoming a stricture; but only for the purpose of diagnosis. He also counsels the operator not to disturb a ring of rust on the cornea after removing a piece of steel or iron. These and many other points from such an outstanding authority as Harman will arrest the reader's attention.

EMANUEL KRIMSKY

The Surgical Clinics of North America. Volume 15, number 3, June, 1935. (Chicago Number.) Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues). Cloth, \$16.00; Paper, \$12.00.

This, the Chicago issue of the Clinics, is devoted largely to traumatic surgery though abdominal and gynecological subjects are also treated. Most of Chicago's outstanding surgeons have contributed to this number creating an interesting and intensely practical volume. Geo. Webb

The International Medical Annual. A Year Book of Treatment and Practitioner's Index. Edited by H. Letheby Tidy, M.D. & A. Rendle Short, M.D. Octavo of 522 pages, illustrated. Baltimore, William Wood & Company, 1935. Cloth, \$6.00.

In rambling through a yearbook on medical reports, the reader is constantly confronted with a maze of confusing and contradictory reports, as well as some empirical and scientific data. Out of this morass he must exercise ingenuity in separating the chaff from the wheat. While medical progress is not a steady evolutionary process, these numerous ebbs and flows which constitute seemingly unimportant contributions, are, in the final analysis, indispensable in keeping medicine alive and in serving as harbingers of something more significant.

And so, this annual does not offer new discoveries of outstanding promise, but mainly a stock-taking of some of the things we have learned to accept complacently.

For example: 1. Noguchi's "discovery" of a germ of Trachoma is refuted.

2. Active immunization against scarlet fever cannot be assured.

3. Tonsillectomy is no protection against colds, otitis, rheumatism, or infective fevers. 4. Serum therapy is of no value in Pneu-

monia, except possibly in Type 1.

5. There is increasing opposition to BCG vaccine for tuberculosis.

6. The so-called cyclic vomiting attacks are not due to acidosis.

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Life has three bases—mind, body and character-and the man whose life is built on only one of them has only got to first base, and no ball game in the world was ever won by players who could not get beyond first. Yet our public schools are full of boys and girls who are patted on the back and held up to public praise for a one-sided, a one-base, development.

"See that girl? She took the prize in advanced algebra!" "That boy is a wonder in the high hurdles!" "That one has a beautiful character!" Fine, but they are one-base hitters. They must learn to reach second and third or they will never score. A sharp drive between the bases or over the shortstop's head will put you on first, but it is not enough.

That is exactly the situation that the private school understands. The girl who is a star in algebra needs physical and cultural training to fit her to be a fine, splendid woman. The high-hurdler will find that in the hig world there is not much call for running and jumping. The boy or girl of fine character must have health and brains, too, or fall short of success.

The very day when your boy or girl enters a fine private school the teaching staff starts to size up and analyze his or her good qualities and weaknesses, and plan to make good what is lacking. The athletic instructor, of course, wants to develop his best athletes into winning teams, but he also looks carefully after the physical development of the weakest boy in the gym. Character-building, too, is cultivated in the private school in a way that the public school never even attempts.

In short, the private school makes threebase hitters, and it is a pretty safe bet that if the youngsters get to third, a big percentage will make a winning sprint to the home plate of success.

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WANTED—Associate, recent graduate, Class A, hospital training Salary and expenses for three months trial. Then salary or share with guarantee No surgery. Up state city. Address Box 101, New York State Journal of Medicine, 33 West 42nd St, New York City

"Stone Walls Do Not a Prison Make—Nor Iron Bars a Cage"

Winter is a jailer who shuts us all in from the fullest vitamin D value of sunlight. The baby becomes virtually a prisoner, in several senses. First of all, meteorologic observations prove that winter sunshine in most sections of the country averages 10 to 50 per cent less than summer sunshine. Secondly, the quality of the available sunshine is inferior due to the shorter distance of the sun from the earth altering the angle of the sun's rays. Again, the hour of the day has an important bearing. At 8 30 AM there is an average loss of over 31%, and at 3 30 PM, over 21%.

Furthermore, at this season, the mother is likely to bundle her baby to keep it warm, shutting out the sun from Baby's skin, and in turning the carriage away from the wind, she may also turn the child's face away from the sun.

child's face away from the sun

Moreover, as Dr Alfred F Hess has pointed
out, 'it has never been determined whether the

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skin of individuals varies in its content of ergosterol' (synthesized by the sun's rays into rutamin D) 'or, again, whether this factor is equilly distributed throughout the surface of the body'

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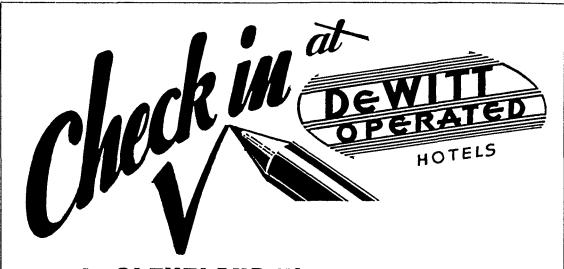
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To enjoy your coming Convention to the utmost, map out your days and evenings and thus obtain the greatest use of available time.

No matter how many times a visitor to the great metropolis has been coming, there is always the prospect of seeing new things New York is

constantly changing. This is as true of downtown New York as it is of the East Side, West

Side, Fifth Avenue or Broadway.

The shade of the venturesome Henry Hudson on viewing the roof tops of Manhattan in 1936 would exclaim indignantly, "It isn't so, I don't believe it." If he should slip into the observation tower of the Empire State Building, 1,040 feet above scintillating Manhattan at night, a wisp of cloud at his elbow, or if he should stroll about the roof of Rockefeller Center not far distant, he would dismiss it all as a fantastic trick of an overwrought imagination. And so it would seem, and so it does seem at times even in this day and age of great dreams realized.



During the early part of the Dutch occupation, Wall Street separated the settlement from a wilderness to the north. The name of this street was derived from the wooden wall extending from river to river as a cattle guard and a protection against wild animals and Indians. Much later bears were given the freedom of the street, although this freedom is now somewhat restrained. In the settle-

ment below Wall Street, cow paths formed the regular thoroughfares and are still trace-

able to this day.

This is the tip of the area that has become the most important and fascinating city on earth, a city wherein millions reside on property that is worth fabulous billions as compared with the four and twenty dollars worth of trinkets that satisfied the original owners.

Instead of the frail craft that brought Hendrick from the old world, incredible floating palaces now sweep in from the Atlantic sea lanes and tie up casually and as a matter of course at piers a thousand feet long.

Upon the solid rock that is Manhattan's

(Continued on page xxxiv)



BETWEEN NEW YORK AND CALIFORNIA

A new Grace Santa sails every two weeks — all outside rooms with private balls, outdoor built in tiled swimming pools dining rooms with roll back dames which open to the sky, Dorothy Gray Beauty Salans pre-release talkies, gymnasium and club hors.

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See Page xxxi

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Good food, good sporting, good times.

Highland Park Hotel

QUEEN OF WINTER RESORTS

For rates, etc., write W. O. CHRISTIAN, Lessee

(Continued from page xxxiii)

easy chair, a city has been built with spires that pierce the clouds—when there are any clouds to pierce. A city of countless wonders, to which the civilized world has contributed and whose attractions are so great that they draw visitors from all points of the compass time and time again.

Perhaps the finest accommodations anywhere are provided by scores of splendid hotels. The leading establishments of the city represent an investment of over three hundred millions of dollars. There are good accommodations to fit any pocketbook. oldest hotel in Manhattan is far downtown at Broad and Pearl streets. Fraunce's Tavern, opened in 1762, is one of the links with Old New York and has the distinction of being the only building in New York City to have been struck by a cannonball fired by an enemy. The best known hotels today are largely in mid-Manhattan. Hotels marched northward with the growth of the city and naturally so for more and more are they the centers of Metropolitan life.

Where Fort Amsterdam originally was built, now stands the Custom House. Bowling Green, Battery Park, and the Aquarium will be found unchanged to the returning traveler but not many pieces of property have escaped the tidal wave of change that swept across the nearby financial district. Towering skyscrapers give an appearance of theatricalism to Wall and Broad streets. When financial structures were piling, buildings in keeping were erected. Besides J. P. Morgan & Company's well known building at 23 Wall street, little remains of the street of ten years ago save the National City Bank and a very few lesser known houses. Trinity Church and the old cemetery where Revolutionary heroes are buried, are now hemmed in by mountainous monuments to business. And at the foot of the street from a recently constructed sea ramp, hydroplanes speed business men to their suburban estates and in summer to resorts normally hours way.

While Wall street and the Stock Exchange have received a lot of the nation's attention in recent years, the visitor to lower Manhattan is really more interested in the "stock" at the Aquarium. This unique place was formerly Castle Garden, famed for the millions of emigrants who passed through. Originally it was a fort, and later used for entertainment. Here many distinguished visitors to America were landed.

Between lower Manhattan and the mid-town section, lie innumerable points of interest. This area, too, emphasizes the saying that

(Continued on page xxxv)

(Continued from page xxxiv)

there are ten thousand New Yorks, depending upon the individual's viewpoint and personal interest. Scores of markets on East Side and West Side receive and dispense the daily provender for millions of hungry mouths. Here are located the Ghetto, Chinatown, Greenwich Village, and other distinct sections each a world in itself.

The East Side continues to excite the visitor's interest though not as vividly as it once did Chinatown is no longer a hot-bed of vice and crime, and no longer attracts the thrill seeker, but its quaint buildings, crooked streets, and strangely foreign populace will commue to draw even the calloused New Yorker to its environs. But, sally, the old Bowery without a song to perpetuate it would have passed into oblivion years ago. It belongs to a bygone day

Coming uptown, it is doubtful if any two points of interest in New York today arouse more general interest than Rockefeller Center and the Empire State Building. The elevated highway on the West Side, the George Washington Bridge, the Holland Tunnels, the Museums, Zoos, Subways, etc., will always excite wonder but no mitter what the visitor does in New York he invariably takes a turn through Rockefeller Center and never forgets to view the entire vicinity from Al Smith's Empire State tower.

Naturally, the business of the Convention is of first importance, but there will be some liesure moments when wasting precious time set aside for entertainment should be avoided. So much is always readily available that a visitor's problem is never one of anything but choice, and with so much to cloose from, some planning is necessary.

In addition to other features, the Waldorf-Astoria your Convention Headquarters, main time provisions for motor service, has special arrangements whereby pitrons may use near-by country clubs and the unusual "About the City Bureau" providing accredited guides, compations chaperons, and shoppers, as well as information on where to go and what to see There is also an office of Thomas Cook & Son for the benefit of travelers, and a Theatre Ticket Agency for your convenience

"Queen Mary" Broadcasts

According to a recent issue of Coming Events, the world at large will be in touch with the Queen Mary each evening during her maiden voyage from Southhampton to New York on May 27, by means of wireless broad(Continued on page xxxvi)

Mention the N Y

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130th ANNUAL

CONVENTION

Medical Society of the State of New York April 27th 28th and 29th 1936



Your convention home at the heart of things Special room and suite arrange ments available to delegates Restaurants afford wide choice of menus at popular fixed prices and a la carte

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COMPLETE PARKING AND GARAGE

FACILITIES

JOSEPH P BINNS, Manager

of the second

THE PERSON

(Continued from page xxxv)

casts arranged by the BBC, in cooperation with the Cunard White Star Line.

Many parts of the ship, including even the crow's-nest, will be wired for microphones. It is proposed to describe, both from the ship and shore, the departure from Southampton and the arrival at New York.

On the second night out, listeners may be taken on a 45-minute tour of the ship, and each night it is planned to include a short flash in the news bulletin.

Good Will Tour by Hotel Man

Mr. Max Blouet, known to many people who have had the pleasure of a stay at the famous Hotel George V in Paris, is at present



on a good will tour of the United States and Canada.

The Hotel George V of Paris is the "Waldorf-Astoria" of France and a popular hostelry for distinguished visitors from America as well as the rest of the World

Mr. Blouet plans to visit Boston, Montreal, Toronto, Detroit, Chicago, Cincinnati, Pittsburgh, Washington, Norfolk, Baltimore, Philadelphia, and New York.

A Pleasant Way to Pleasure Islands

The Bermuda Hotels, Incorporated, and the American Airlines, Inc., announce a new way to reach Bermuda—by plane and steamer.

"The gangplank," they tell us, "is only a few hours away—when you fly. Say goodbye to dreary Winter and . . . presto! . . . you're aboard ship to where life, warmth and sunshine will fill your days."

Via American Airlines, vacation begins when you step aboard your plane to spend a few pleasant hours in the blue sky. If you're sailing tomorrow, you spend the night in New York instead of en route.

If you haven't flown before, you'll enjoy your trip on the largest airline in the United States. American Airlines, Inc., flies 6,850 miles of route connecting 57 cities in 22 states, directly serving more than 25,000,000 people, and has carried more passengers (some 700,000) than any other airline.

Round trip from Buffalo to New York is less than \$40 and the time required to bring you to New York is an hour and 34 minutes

Information on American Airline service from other cities may be had from your local travel agent, as well as sailing dates for steamers to Bermuda

Red Star Liners Reconditioned for Season's Service

As announced by John J. Dwyer, Passenger Traffic Manager of the Red Star and Arnold Bernstein Lines, advance bookings and inquiries on European travel for Spring and Summer point to the biggest season of travel in 1936 than in many years.

To adequately handle this increased business the steamers Westerland and Pennland have been completely rearranged and renovated from stem to stern. Staterooms, halls, and public rooms have been refurnished and improved from a standpoint of luxury and comfort

(Continued on page xxxxx)

SHERWOOD MANOR

Bermuda's exclusive resort by the sea for those desiring rest, comfort, sports, good food good beds, fresh spring water, and transportation to and from Hamilton, a mile away, at no extra cost And for those desiring all these for the least possible expense Bathing, boating, tennis, golf practice, dancing—all on the premises Mr and Mrs Sherwood 'is the name"—Dutchland Farms Store, Saugus, Mass and Sherwood Manor Bermuda.



PLACES for REST in the ISLES of REST

THE BERMUDIANA

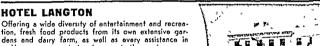
A modern resort hotel in a beautiful IS acre estate New Floral Sports Garden with magnificent swimming pool, tennis, iawn sports Special golf and skeet privileges. Sperkling entertainment program. Excellent custine. Modern rates. Apply, your Traval Agent, or Robert D. Blackman. General Manager, Hotel Bermudiana, Bermuda: or New York representative, 34 Whitehall St., New York.





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High above the islands of Hamilton Harbor, set in a semi-tropical park with breath-taking views on every side. Facilities for devotees of all sports. All conveniences for comfort. Maintening best social traditions and catering to discriminating and refined people. Finest cuisine. For information, etc.—John O. Evans, Manager, Balmont Manor, Bermuda; or authorized travel agencies Bermuda Hotels, Inc., 500 5th Ave. New York, N. Y. PEnnsylvania 6 0665.



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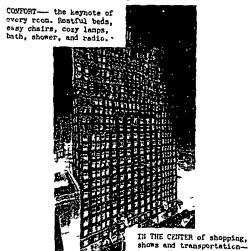


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HOT AND COLD SEA WATER IN ALL BATHS
Excellent Food — French Cuisine — Garage

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Daily rates from \$2 single, \$3 double Rooms with private bath from \$2.50 single — \$3.50 double

Hotel WOODSTOCK

127 WEST 43RD STREET
Just East of Broadway
UNDER KNOTT MANAGEMENT

(Continued from tage xxxvi)

Formerly carrying 1,400 passengers, the new arrangement calls for a maximum capacity of 565 travelers of tourist class, each accordingly having the run of the ship.

Other changes are rearrangement of the spacious sports decks, making room for additional outdoor games; enlarging the swimming pools, adding a rifle range, trap shooting range, and a miniature golf course.

Because of the increased demand by travelers who want to take their motor cars abroad with them, the ship garage on both steamers has been enlarged and so arranged that cars can be unloaded and serviced for the land journey within a few minutes after the steamers reach their destinations.

Discussing the seasonal outlook, Mr. Dwyer remarked, "It is really surprising the number of people who are not only booking passage abroad for themselves but for their automobiles as well. It is becoming the modern, comfortable and convenient method of travel, and with American trained mechanics and English speaking attendants to be found on every European road, the service and refueling stations on the Continent today are about as in the United States. For those planning budget trips, we have many planned trips for motor parties, which can be purchased here before sailing, complete in every detail even so far as to caring for the supply of gas and oil needed during the trips through the various countries."

A Gain in Florida Travel

Stating that "pleasure travel is one of the best indices of business conditions," Mr. S. B. Murdock, G. P. A. of the Seaboard Air Line Railway, points encouragingly to a 42 per cent increase over last year in travel on the Orange Blossom Special The Southern States Special and the New York-Florida Limited, covering the same route as the "Blossom," are close seconds in the almost unprecedented travel gain which Mr. Murdock says is indicative of general business gain.

"Business travel, on the other hand," he adds, "may maintain a fairly high level even in bad times. Firms redouble sales effort and there is a constant shifting of population in the search for new opportunities and for

employment,

"But present record travel on our trains is predominantly travel for pleasure. It means that thousands of people are again able to take vacations in Winter; to spend money without the expectation of any return except what the economists call 'psychic income,' which means the resulting satisfaction and pleasure. So great

(Continued on page xli)



A Favored Hotel In an exclusive locality

FEATURING - 2 ROOM Suites at \$800 daily and up with generous closets and perfectly equipped serving pantries.

Excellent Restaurant with Cocktail Lounge



125 EAST 50# STREET-NEW YORK



It offers all the services of a modern

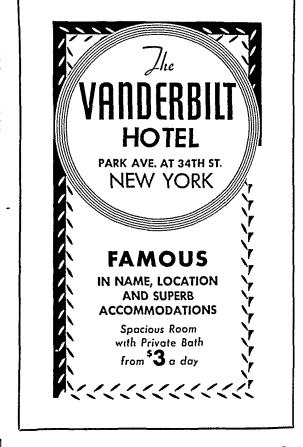
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Enjoy the extra facilities of a swimming pool, gymnasium, solarium, library, roof garden, squash and badminton courts.

Room with bath from \$3 daily

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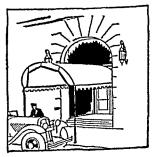


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When Called to New York

for consultation or convention

You'll find the comfort, charm and privacy of a well - managed home awaiting you at THE BARCLAY, combined with



- CONVENIENT LOCATION-a step from Central Station; on bus and subway routes leading to hospitals and medical centers; a short distance from Broadway theatres and the better men's shops.
- ECONOMICAL LIVING—parlor suites with serving pantry and electric refrigeration, \$10, \$12 and \$15... Single rooms, \$5, \$6 and \$7... Double rooms, from \$8.
- DISTINCTION patronized by discriminating people in the different professions and in business. THE BARCLAY

11 Enst 48th St. New York City George W. Lindholm Manager

(Continued from tage xxxix)

an increase in number of passengers carried in one season by the Orange Blossom Special is thus an important gauge of the improvement in business conditions, and I do not believe the peak of the season has yet been reached.

"Besides rapidly returning prosperity, other factors in the record travel on this famous train are: low rail fares with liberal stop-over privileges, so that without any additional fare one may visit both coasts of Florida and also the famous mid-South resorts of Camden, Sea Island, Southern Pines, and Pinehurst. And if there are at least two pullman passengers in the party, one may take a car along at the cost of only one additional passenger fare."

Mr. Murdock also pointed out as factors, the air-conditioning feature for comfort, and the quality of food and service which form so much a part of the popularity of the "Blossom."

Atlantic City's Marine Activities

Atlantic City has prepared for a definite increase in the various branches of marine activities this summer. For the past year both federal and local governments have been working on projects to aid yachting and deep sea fishing, and within the next few weeks, the projects will be complete for the influx of the resort's spring and summer visitors.

Atlantic City will have a channel 250 feet wide and deep enough to accommodate shipping with an average of 17 feet at mean low water. It will extend 4,700 feet from the Inlet to its termination outside, following a south-southwest magnetic course. Skippers, both experienced and amateur, will have no difficulty in navigating their boats into the port now that the channel has been dredged. This dredging, which is the work of the federal government, will be completed at a cost of \$184,000 and has been in progress for nearly a year.

The fishing bank project, as proposed by the Atlantic City Chamber of Commerce, is set for a hearing with the War Department. The Chamber of Commerce is seeking the approval of the Department to deposit debris over the ocean floor in an area one mile wide, four miles long and about 11 miles from the coast. The purpose of the bank is to collect marine growth and attract fish for hand-line fishing.

The Tuna Club, a local organization formed for the purpose of aiding the resort's guestfisherman to catch the most fish with the least effort and expense, has a membership of over 200 enthusiastic workers meeting regularly in order to have their program in readiness for the throngs who will take advantage of the Club's service.

\$2.50

for an outside room with bath, shower and radio. at the

HOTEL MONTCLAIR

AND \$3.50 FOR TWO PERSONS

One of New York's largest and newest hotels, containing outside rooms. Located in the center of the world's greatest business - shopping district — the Grand Central Zone.

OPPOSITE WALDORF-ASTORIA

Casino Montclair, gay and beautiful, one of the most popular rendezvous in town-Dancing at Luncheon, Dinner and Supper.

> LUNCHEON from 65c. DINNER from \$1.25 SUPPER SPECIALTIES from 75c.

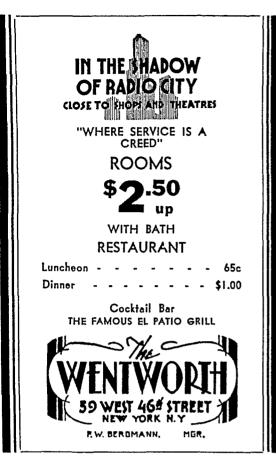
Two Orchestras—Never a Cover Charge

HOTEL-MONTCLAIR

Lexington Ave. 49th to 50th Sts.

NEW YORK CITY

J. 17. 18 1 --



(Continued from page xli) Travel Brevities

Among Traveling Colleagues we find Dr. Hans Friess of New York sailing on the "Monarch of Bermuda." Dr. and Mrs. Horace K. Sowles, and Dr. and Mrs. Homer C. Sowles, of Boston, sailed on the "Queen of Bermuda." All were destined for a Bermuda rest.

In Bermuda we note the following doctors enjoying the Hamilton Hotel-Dr. B. D. Thorpe of Newport, N. H.; Dr. P. H. Gilbelhous of Bayside, L. I.; Dr. Eugene M. Blake, New Haven, Conn. and Dr. A. E. Ogden, Trenton, N. J.

To Understand England, a traveler must have some historic sense; he must see in tradition something more than a ludicrous or sentimental survival and in the monuments of the past something more than the husks of departed glories.

THERE are no fewer than 360 characters in The Pickwick Papers by Dickens, and twentytwo inns are mentioned by name. What a travel man!

THE NEW MOTORLINER Batory, sistership of the Pilsudski and second new trans-Atlantic liner to be built by Poland since the nation regained its independence, will leave Gdynia on her maiden trip on May 18th and arrive in New York on May 27th. On its return maiden voyage, the Batory will leave New York on June 2nd. Launched last July 3rd, the new liner is nearing completion at the Monfalcone Shipyards in Trieste, Italy. It will join the Pilsudski on the New York-Halifax-Copenhagen-Gdynia run, twenty round-trip trans-Atlantic crossings in 1936.

Among American Universities which are arranging tours of their students to include the Olympic Games in Germany this year are Notre Dame, Virginia and Maryland, according to Thos. Cook & Son-Wagons-Lits Inc., who have been appointed official transportation agents in handling details of the trips. The Notre Dame group, according to Cook's, will sail on the Normandie from New York on July 15th. The groups from the Universities of Virginia and Maryland will sail on the Bremen on July 17th. In addition to attending the Olympic Games, the tours will include the principal cities of England, France, Germany, Holland, Italy and other European countries.

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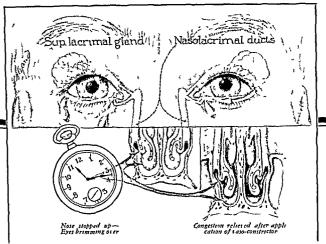
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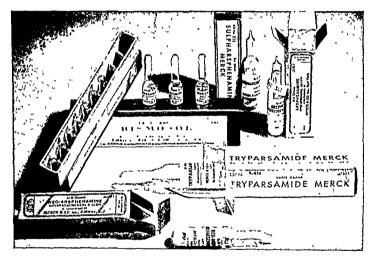
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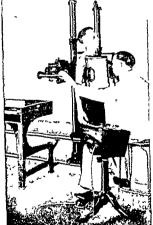


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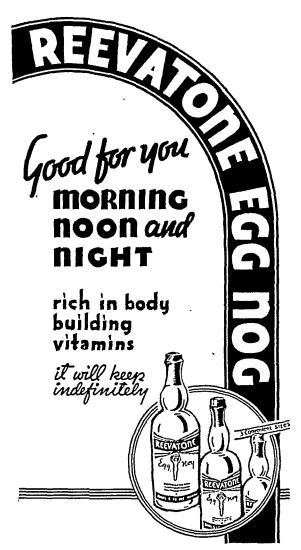


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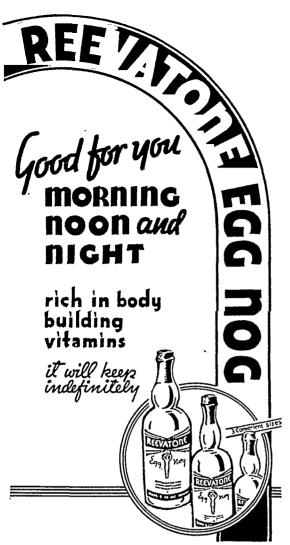
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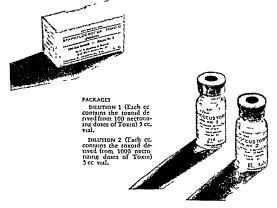
Condition Treated	Reco	overed	Impro	vement	Slight	or No Benefit
Acne	3	cases	21	cases	6	cases
Blepharitis	8	"	6	**	1	"
Furunculosis	25	"	14	"	-	"
Carbuncles	3	**	1	"		"
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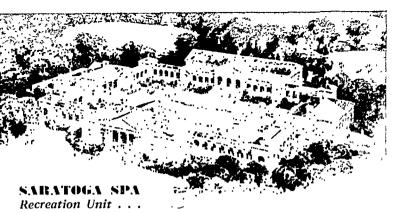
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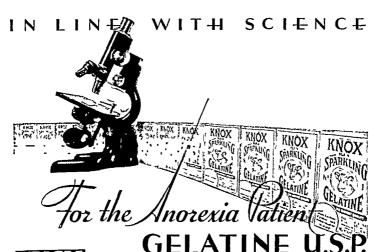
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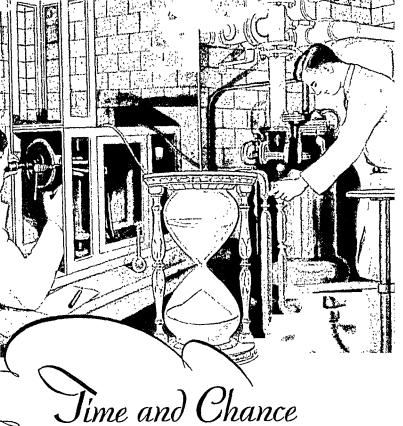
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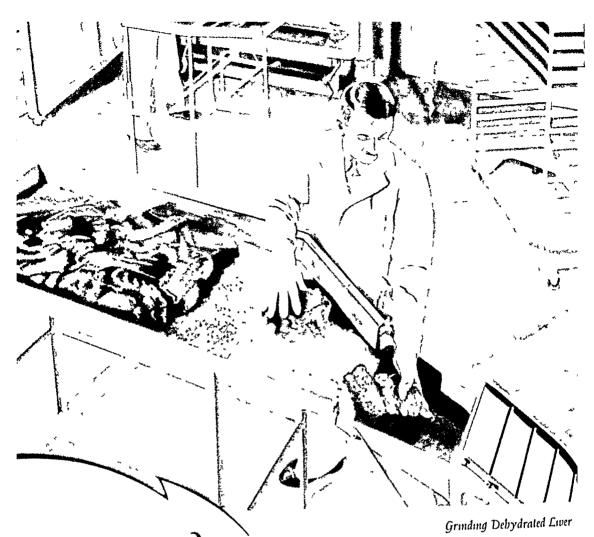


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Kugelmass, Clinical Nutrition in Infancy and Childhood, (Lippincott).
Marriott, Infant Nutrition, (Mosby).
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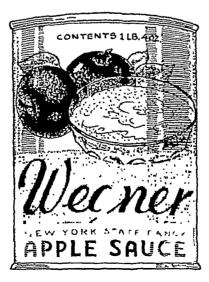
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THE ABUSE OF CESAREAN SECTION

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At the end of pregnancy the uterus which is normally a small almost solid organ two and one-half inches long, has been converted into a thin-walled muscular sac almost thirteen inches long, ten inches wide, and nine inches deep, capable of containing the fetus, the placenta, and a large quantity of amniotic fluid Its capacity has increased 519 times and it weighs about two pounds, as against one ounce which is its weight in the virginal condition In cesarean section one opens this hollow, muscular viscus, which is continuous with the vagina, the lower end of which is always contaminated, and takes from it, through the peritoneal cavity, (1) a baby, covered with more or less vernix caseosa (2) an umbilical cord (3) a placenta-weighing one sixth as much as the baby (4) membranes (5) a varying amount of amniotic fluid-sometimes mixed with meconium (6) blood, fluid and clotted, from the placental site and uterine sinuses

In no other operation in abdominal surgery is the peritoneum thus exposed. It is expecting much of the peritoneum to have it withstand such a procedure without infection.

Patients usually die from shock due to trauma and hemorrhage or from peritomits due to infection. Such an abdominal operation must be hazardous even when done under ideal conditions by the most skillful operator.

The low cervical cesarean section or laparo trachelotomy as it is called by De Lee, its chief exponent, is much safer than the classical operation but even it has a high maternal mortality

Lull states "that unless one is thoroughly trained the low operation is much more likely to be fatal from shock or hemorrhage". He states also "that the average maternal

mortality throughout the country in cesarean section is 67 per cent"

Colum in an analysis of 220 cases of abdominal cessive in section noted a maternal mortality of 55 per cent—the number of deaths going from zero to eleven per cent. In 818 per cent of these women the membranes had not ruptured at the time of operation. In this series the morbidity in the classical operation was forty one per cent and in the low cervical thirty eight per cent—very little difference.

Duchman³ in an analysis of 733 cases of cesarean section reports a maternal mortality of 3.4 per cent with morbidity of 43.8%

Gordon' reported a maternal mortality rate of 114 per cent in cases of breech presentation treated by cesarcan section De Lee5 comments on this by saying "a maternal mortality of 114 per cent for cesarean section should make us all pause and ask why"

O'Connor⁶ reported on 436 cestrean sections. His incidence was one in thirty—and the gross mortality was 46 per cent. In his group of classical sections the mortality was four per cent against 53 per cent in his low cervical sections. Fifteen per cent of his deaths occurred in clean, elective nontovic patients in good condition. His mortality in eclampsia was 20 per cent.

De Lee' in commenting on this report says "I must, however, warn against the growing mustes of a noble operation. The mortality from it in the United States is at least six per cent which is frightful, and something must be done about it. In some places the mortality is over ten per cent and we wonder if we have not wandered too far away from our old friend watchful expectancy. Also, where have the real obstetricians gone? As soon as the doctor is presented with a complicated knot in obstetrics to until, he simply cuts it."

The low cervical cesarean section is vaunted as being safe especially in suspiciously infected cases

Trillats⁸ writes on the dangers of the low cervical cesarean section in suspiciously

infected cases. He reports 110 cases of the low cervical cesarean section with a total maternal mortality of 7.2 per cent. In this series in even the cleanest cases, it was 3 per cent and in more potentially infected cases, as high as 28.5 per cent.

De Lee, the champion of the low cervical cesarean section, amazed at Lull's maternal mortality rate of 6.8 per cent comments on

these statistics as follows:

"In spite of these enormous mortality rates for cesarean section, the operation is being done often in the United States-too often." Of the report on the low cervical cesarean section, he says, 10 "these are terrific I learn from these mortality rates. . . . figures that even the low cesarcan section has a high mortality in infected cases and that perhaps we should fall back on our dishonored friend craniotomy—pity 'tis true."

There are many more statistics to show that abdominal cesarean section carries with it a high maternal mortality rate. Many series with a high mortality rate are not even reported and hundreds of scattered individual deaths never get into the literature.

Cesarean section has a much higher maternal mortality rate than we suppose even when the low cervical operation is done at the optimum time by the most skilled operator. It is evident that fewer cesarean sections should be performed, especially since far too many are being done for nonvalid indications. The commonest of these are:

1. Placenta previa. The conservative treatment of the simpler types of placenta previa gives a low maternal mortality rate. This treatment consists of the use of the modified De Ribes bag, packing, Braxton Hicks version, etc. Cesarcan section has a limited place in the treatment of placenta previa particularly of the central type in primiparae; but placenta previa is essentially a condition of multiparity and the central type is relatively infrequent. Cesarcan section is very rarely necessary in the great majority of the cases of placenta previa.

2. Accidental hemorrhage. That this complication, namely the premature separation of a normally implanted placenta is best treated by conservative means is exemplified by the report of Frederick C. Irving¹¹ of Harvard University of 269 cases. In the cases treated by cesarean section maternal mortality was 15.7 per cent. the cases of similar severity, treated conservatively the maternal mortality was 7.1 per cent—less than one-half. The tendency throughout the country is to do a cesarean section on any woman past the sixth month of pregnancy, the moment that she loses some blood.

There are rare cases of placenta previa and accidental hemorrhage in which cesarean section is indicated, but most of the patients with these two complications now being delivered by cesarean section could be treated more safely by conservative methods.

3. Eclampsia. In general surgery a patient with hypertension, acute nephritis, convulsions, and perhaps coma is considered the poorest risk for any operation. pregnancy such a patient is just as poor a surgical risk. The shock of cesarean section in an eclamptic patient even when done under local anesthesia, and the decreased resistance to infection which this patient has, practically preclude its use. Besides, the conservative treatment toxemia of pregnancy and eclampsia is conceded the world over to yield the best results of any so far. Cesarean section in toxemia of pregnancy or eclampsia is practically contraindicated.

4. Uterine inertia and rigid cervix. According to Edgar12 "the duration of the first stage of labor is variable. It may be as short as two hours and it may continue several days." The number of patients at present in whom the first stage is allowed to go on for several days, thereby escaping cesarean section, is very small. The cervix will almost always become fully dilated if you give it enough time. Patients with ineffectual pains, pains that are irregular in force and rate, will naturally have a longer first stage, but active treatment is not demanded when labor is slow as a result of such pains. With intelligent treatment they gradually improve in character, and finally bring about full cervical dilatation.

Uterine inertia with so-called rigid cervix is the excuse the attendant gives for doing a cesarean section. It is not a valid excuse because with careful management of the first stage, particularly with the use of morphine, scopolamine, sodium amytal, pento-barbital, nembutal, rectal analgesia, gas oxygen by inhalation, or the many other hypnotics and analgesics at our disposal today, it should not be necessary to do a cesarean section for so-called uterine inertia. This is particularly true in primiparae where the attendant instead of waiting patiently for the labor to progress cuts it short. The length of time per se that a patient is in labor is not an indication for any interference—certainly not for cesarean

5. Cephalopelvic disproportion. pelvic disproportion is the excuse for most of the unnecessary cesarean sections being

done today.

Cook13 in a recent article states that "feto-maternal disproportion is the most commonly encountered excuse for cesarean section. If it were not so tragic the truth of this situation would be laughable,"

Lull, in listing the indications for cesarean section says, "where the indication is listed as cephalopelvic disproportion there may be some instances where the imagina-

tion is stretched a trifle."

In cephalopelvic disproportion the indication for cesarean section is either absolute or relative. The absolute indication is where the baby can only be removed by cesarean section-that is, where the true conjugate diameter of the pelvis is five to six and one-half centimeters. From such a pelvis, or where similar disproportion exists, even a mutilated child cannot be born. Absolute disproportion is very rare and the indication for cesarean section is purely objective because there is no other way for the attendant to deliver the patient.

The indications in relative disproportion for cesarean section then are purely sub-That is, subjective with the attendant, simply because he makes up his mind that this patient must be delivered by cesarean section. The attendant's decision emanates from and depends upon his:

1. Obstetrical knowledge and experience or

from below.

2 Skill in delivery by the vaginal route or his lack thereof. 3. Courage and patience to wait and deliver

4. Willingness to sacrifice his time and strength in the interest of the patient.

If the attendant cannot correctly evaluate the status of the patient or if he has not the necessary ability to deliver her from below, he will immediately fice to cesarcan section. He thereby terminates a labor which could have been completed from below, and with much greater safety to the patient.

It is known that even patients with border line disproportion can generally be delivered from below. Often when we thought that cesarean section eventually be necessary we were surprised at the ease and facility with which the patient was delivered via the vaginal route.

Relative cephalopelvic disproportion. whether it exists or not, is frequently an excuse for doing a cesarean section. If the fetus was dead in any one of these particular patients the attendant would necessarily deliver her from below.

6. Heart Disease. Several facts are remarkable about heart disease in pregnancy

and labor, namely that:

1. These patients frequently have short easy

2. Patients with moderate decompensation usually stand the ordeal of labor very well.

3. Even with enlargement of abdomen present at full term, they take general anesthetics well.

Therefore cesarean section is rarely indicated in labor complicated by heart disease. It is never indicated solely because the

patient has an organic murmur.

7. Cesarean section in the interest of the The recent criticism of obstetrical practice in this country has not been aimed at our fetal mortality but rather at our maternal mortality. While admitting a better fetal mortality rate in delivery by cesarean section, I am certain that we would not be criticized for a slight additional fetal mortality in exchange for a lower maternal In the rare instance where a mortality. living baby must be had at almost any cost, it is justifiable to subject the mother to the added risk of cesarean section, but the attendant should not rush into cesarean section at the first sign of fetal distressnor must he do a cesarean section because of the odium that a fetal death would bring upon himself.

It is important that the baby be in prime condition when the abdominal incision is Although it may seem incredible, too many children born following a cesarean section are either dead when extracted or

live only a few hours,

It must not be assumed that most of the babies, now saved by cesarean section, would not have been saved had they been born via the vagina. The high fetal mortality in reported series of cesarean sections is

remarkable.

8. Malpresentation or malposition of the fetus. It is inconceivable that anyone would do a cesarean section for malpresentation or malposition—per se, at the onset of or during labor. Nevertheless many cesarean sections are done because of a malpresentation or a malposition such as occiputoposterior position, especially if the labor is not progressing to suit the attendant.

In breech presentation, especially primiparae, the fetal mortality is about three or four times as great as in vertex presentation but even in border line pelves the baby can always be extracted from below even if on rare occasions the aftercoming head must be crushed. Breech presentation per se even in primiparae is not an indication for cesarean section.

9. Nonengagement of the fetal head at beginning of labor, especially

primiparae.

In primiparae the fetal head is usually engaged in or even through the pelvic inlet about two weeks before the onset of labor if there is no cephalopelvic disproportion, If however the head is not engaged at the

onset of labor it does not signify that cephalopelvic disproportion exists nor does it indicate that the patient will not deliver herself easily from below. This is contrary however to the belief of many otherwise well-informed obstetricians. I wish to state that nonengagement of the fetal head at the onset of labor is *not* an indication for cesarean section.

10. Reluctance of attendant to make sacrifice of time and effort. The proper care of a patient in labor consumes more time than the care of any other medical or surgical patient. The obstetrician must be either in constant attendance or visit the patient at frequent intervals over a period of from two hours to several days. A great amount of time must be devoted, much effort expended and a great physical sacrifice made, especially in a long drawn out primiparous labor which may go through more than one night. A mid-forceps operation for persistent occiputo-posterior position with an episiotomy and its repair, and a trying third stage at the end of a forty-eight hour vigil is technically more difficult and physically more trying for the attendant than a cesarean section done two evenings Patients are being subjected to cesarean section because it is the quickest and easiest way out for the attendant. course a contributing excuse is found.

11. Monetary considerations. The doctor lives through thirty-six to seventy-two hours of labor with his patient and at the end of this time struggles through a difficult delivery from below. For this he receives a certain fee but he can spare himself the work and get a larger fee by doing an early cesarean section. The unscrupulous doctor chooses the latter method.

It is unfortunate that patients are willing to pay, and doctors are willing to demand a greater fee for a cesarean section than for a delivery from below. Of course just

the reverse should be true.

Craniotomy, internal podalic version, mid-forceps operations, cervical incisions, use of the De Ribes bag, and the like are becoming rarer and rarer obstetric procedures. They are being supplanted by cesarean section. In some of our larger hospitals a basiotribe no longer exists, and in others it has not been out of the instrument cabinet for several years.

The cesarean section urge has made us forget that patients can be delivered safely from below even if dystocia exists. Williams¹⁴ in his text book states that "in moderate degrees of pelvic contraction craniotomy if properly performed in

uninfected women is almost devoid of danger."

In Curtis' System of Obstetrics and Gynecology¹⁵ it is stated that "if no infection has occurred the risk of craniotomy should be scarcely more than forceps."

Shir¹⁶ reported 143 patients in which Duhrssen's incisions of the cervix were made. De Lee¹⁷ commented on this report by saying "when the incisions are made at the proper time they are without danger except in the rudest hands. Here is an instance where a skillful obstetrician can save many babies and mothers without resorting to cesarean section."

I have described a group of patients in whom unnecessary cesarean sections are being done. Some of these patients could have delivered themselves spontaneously, some could have been delivered from below, artificially but very easily. In many of the others the operations which I have just mentioned (craniotomy, mid-forceps,

etc.) were indicated.

The preponderance of cesarean sections done for nonvalid indications are done in primiparae. It is important to realize the condition in which the patient is left for her second pregnancy. The mortality and morbidity of cesarean section are not its only bad features; the fact that future cesarean sections will probably be necessary adds to its disadvantages. women must have a cesarean section done every time they become pregnant for no other reason than that they were delivered in this manner the first time. Had the first cesarean section been avoided, even at the expense of a dead baby, they could thereafter have had normal multiparous confinements. This is exemplified by the cesarean section which is done in a primipara for breech presentation.

Conclusions

The maternal mortality from cesarean sections in the United States is frightfully high. It is at least from six to ten per cent and probably higher because many bad series of cases are never published, and many scattered individual deaths never reported. The main cause of this high maternal mortality rate is not to be found in a lack of skill on the part of the operator, nor in the fact that the operation is done too late in labor, nor in the fact that the membranes have been ruptured

too long, nor in the fact that the patient was presumably infected Granting, however, that all these may be contributing causes, cesarean section still has a high mortality rate even when done on the cleanest patient, by the most skilled operator at the optimum time The main cause resides in the very nature of the procedure itself

It was brought out at the beginning of this article that such an operation must necessarily be a hazardous undertaking and therefore the only way that the number of deaths can be reduced is to perform fewer cesarean sections. There are patients being delivered by cesarean section for uterme inertia and cephalopelvic disproportion in whom there is really no reason whatsoever for doing this operation.

Even in the group in which relative disproportion exists most of the patients could be delivered from below of living babies, by one of the usual but now oldfashioned obstetric procedures having a maternal mortality rate almost nil. these cases it is true that an occasional baby would be lost, rather than an occa-

sional mother

An indication for cesarean section exists when during labor it becomes evident that major disproportion between passenger and passage is present; it also exists when, during labor, it becomes evident, due to a combination of factors, that a cesarean section would be safer than a delivery These two indications are relatively rare but they are the ones in which most mistakes are made. They are the ones that are most abused even by men whose intentions are honest

The conclusion that major disproportion exists can frequently be arrived at only after a full test of labor A full test of labor is a test of the second stage, not of the first stage; that is, a patient in whom the cervix has not been fully dilated for about two hours with the membranes ruptured, cannot be said to have had a test of labor.

The habit prevalent today of hastening to cesarean section as soon as any obstetric difficulty arises should be cured habit can only be cured when the attendant has sufficient experience to correctly evaluate the status of his patient, when the attendant makes his decision honestly,without regard to his personal convenience -and when the attendant has so perfected himself in obstetric operations that he feels just as competent in doing a vaginal delivery as he does in doing a cesarean section

To quote De Lee18 again "there is hardly an obstetric complication that has not been treated by cesarean section-indeed many men know of but one way out of a difficult obstetric situation and that is

cesarean section

When a patient is in labor, especially a primipara, the attendant should relegate the thought of cesarean section to the remotest corner of his mind, for he will then give her a real test of labor; whereas with cesarean section uppermost in his thoughts, knowing that the longer the labor is allowed to progress the more dangerous the cesarean section becomes, he cuts the test of labor short.

It is frequently too late to do a cesarean section safely; it is hardly ever too late to deliver safely from below. Cesarean section is usually done too early-before the patient has a chance at vaginal delivery.

Let us give patients solid conservative treatment This is safe and satisfactory. Let us carry out intelligent, watchful expectancy in labor. Let us acquire experience and skill in vaginal delivery, and these two will give us the courage to treat our patients conservatively throughout labor and to deliver them through the natural passage 515 PARK AVE.

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TUBERCULOUS AND TUBERCULOID SKIN DISEASES Study of 240 Cases

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Tuberculosis of the skin as well as tuberculosis of other organs is established definitely by the demonstration of the tubercle bacillus in smears or skin sections, by culture, and by animal inoculation. Important aids in confirming the diagnosis of tuberculosis are properly controlled skin tests and histopathologic studies of skin sections. The great amount of time necessary in examining material for tubercle bacilli and the great expense necessary in carrying out culture methods and animal inoculation limit the employment of these tests. The use of tuberculin skin tests is gaining favor, and possibly the conclusions of workers in this field may soon be generally accepted. Histopathologic study affords the clinician valuable aid in confirming his diagnosis.

In this paper the value and limitations of the histopathologic studies are considered in 240 cases divided into four classes which belong in the group of dermatoses classified under tuberculosis including tuberculids and the borderline diseases. They comprised about sixteen per cent of 1490 biopsies. It is noted that the interpretation in these cases conformed with the following statement which appears in all editions of *Pathologic Anatomy and Histology* by Delafield and Prudden:

In studying the reaction of living tissues to the tubercle bacillus it should always be borne in mind that while as a whole, the lesions produced are quite characteristic, there is still no one structural feature or combination of features of tubercles or tuberculous inflammation which is absolutely distinctive of the action of the bacillus.

In proposing the four classifications, the following basic concepts are admitted. The key to tuberculous tissue is the tubercle. Three types of tubercle are recognized.

1. A nodule consisting of an area of central cascation, an intermediate zone containing epithelioid cells and lymphocytes and possibly giant cells, and a peripheral zone of lymphocytes.

2. A nodule consisting of epithelioid cells, lymphocytes, and giant cells arranged so that the epithelioid cells predominate in the central zone, and lymphocytes predominate in the peripheral zone.

3. The so-called pure epithelioid tubercle consisting of a nodule in which the epithelioid cell predominates throughout except for a narrow periphery of lymphocytes.

The first and last types were frequently noted in the material examined. The key to tuberculoid tissue is the ratio between the epithelioid cell and the lymphocyte. Tissue which shows a reaction of mixed epithelioid and lymphocyte cells in which tubercles can not be demonstrated is considered tuberculoid in structure. A definite ratio is maintained—one epithelioid and one lymphocyte or two, three, four, or more epithelioid cells to one lymphocyte or one epithelioid cell to two, three, four, or more lymphocytes—with enough epithelioid cells in the focus of infiltration to be prominent. Giant cells may or may not be present in either group.

Besides the changes in reference to the epidermis, blood vessels, and appendages, the cases were revealed according to the

concepts as shown in Table I.

The cases are placed in four classes.

Class 1 (Agreement)

There were 119 cases in which the clinical diagnosis and the histologic interpretation were in agreement. In many the agreement was based on correlation with the clinical description.

Lupus vulgaris: 22 cases (all with tuberculous structure.)

Lupus miliaris disseminatus fac.: 8 cases (all

with—ous structure.)

T.b. cutis: 18 cases including 2 with mixed clinical lesions in colored patients. (Lupus miliaris des. et fac. keloid and t.b. cutis) and (miliaris lupus l.v. and l.e.)

T.b. ver. cutis: 4 cases including 2-ous; 2-oid.

Lupus pernio (possibly): 1 case—ous. Erythema induratum: 5 cases. 1—ous; 3—oid; 1 predominating lymphocytic.

Lichen scrofulosorum: 2 cases. Both—oid.
Sarcoid Boeck: 5 cases. 4—oid; 1 lymphocytic principally.

Darrier roussy 12 cases 4—out, 8—oid Papulo necroite tuberculide 15 cases 2—ous, 12—oid, 1 predominating lymphocytic

Granuloma annulare 1 case—oud
*Lichen nitidus 5 cases 1—ous, 4—oud
*Acne rarioloformis 4 cases 2—oud, 2 lympho
cytic

*Lupus erythematosus 15 cases
*Le pemphigoides (Senear Usher type)
cases

. Generally considered not of tubercular origin

Class 2 (Disagreement)

Seventy cases in which the clinical diagnosis was a type of tuberculosis tuberculid or borderline disease with or without an iterrative diagnosis and the histologic interpretation offered another diagnosis

Lupus vulgaris In six cases clinically diagnosed as lupus vulgaris the histologic interpretation resulted as follows two cases showed as infectious granuloma (an alternative clinical diagnosis of blustomycosis was offered in one) two cases showed as inflammatory process one case showed as syplulis one case showed as lichemification. In the latter case an alternative clinical diagnosis of lichen planus was offered

Lupus miliaris dessemmalus faciei. In three cases diagnosed chinically as lupus miliaris desseminatus faciei histologically showed as perifoliculitis In each case an alternative clinical diagnosis of lichen mitidus was offered

The vertices a cutis. In five cases diagnosed clinically as the verticutis the histologic in

terpretation resulted as follows two cases showed as intraepidermal epithelioma (One a so called Bowens the other a type seen in senile keratosis) one case showed as fibramiyoma one case showed as foreign body granuloma one case showed as inflammatory process

Tuberculosis cutts. In twelve cases diagnosed clinically as tuberculosis cutts the histologic meterpretation resulted as follows six cases showed as nonspecific granuloma or granulation tissue. In one crise an alternative clinical diagnosis of bhistomycosis was offered and in an other case an alternative clinical diagnosis of proderma was offered three cases showed as gumma. An alternative clinical diagnosis of actinomycosis was offered in one case one case showed as Ilymphoblastoma. An alternative clinical diagnosis of epithelioma was offered in this case one case showed as psoriasis one case showed as sporiasis one case showed as psoriasis one case showed as epithelioma (squamous celf)

Lichen scrofulosorum. In three cases diagnosed clinically as lichen scrofulosorum, one showed as an inflammatory process and two

showed as vesicular dermatitis

Lupus permo In two cases diagnosed clinically as lupus permo one was returned as erythem induration and the other as acanthoma. In the latter artefact was offered as an alternative clinical diagnosis.

Erythema induration In no instance was a case clinically diagnosed as erythema induration returned with a non confirmatory histologic

interpretation
Sarcoid In eighteen cases diagnosed clinically as sarcoid the histologic interpretation

TAPLE I

Tuberculous
Consistently
Lupus vulgaris
Lujus militaris dis faciei
1 b cutts

Societimes
The verrucosa cutis
I rythema and tratum
Datrier roussy sarco d
I apulo necrotic tul creuli I

Tuberculoid
Consistently
Boeck's sarcoid
Darrier roussy sar
Lichen middus

Commonly
Lichen scrofulosorum
Pap nec tuberci lid

Scanty 'oid often
T b ver cuits
Lichen scrofulosorum
Pap nec, tuberculd
I ichen nitudus
Boecks sarcoid
Frythe induratum
(ranuloma annulare
Frythem eleyatum diutinum

Neither ous nor oid

In some cases
Th ver cutis
Lichen scrofulosorum
Lrythema induratum
Boeck a sareoid

Pap nec tubercul d Lupus erythema

TABLE II

Total cases		Class 1 (Agreement)	Class 2 (Disagreement)	Class 3 (Revealed)
28	I upus vulgaris	23	6	` 0
13 35	Lupus mil aris die fac	8	3	2
35	Tuberculos s cutis	18	12	5
9	T b verrucosa cutis	4	5	Ŏ
5	Erytlema induratum	5	0	Õ
2	Lupus pernio	1	1	Õ
6	I ichen scrofulosorum	2	3	ĭ
8	Boecks	5	0	ž
31	Sarcoid dar rous	12	18	i
31 28	I ap nec tubercul d	15	13	ň
2	Granuloma annulare	1	I	ö
6	I ichen miti lus	5	Ġ	ĭ
25	l upus erythematosus	18	Ž	á

resulted as follows: nine cases showed as inflammatory process. An alternative clinical diagnosis of Hansen's disease was offered once: three cases showed as lymphoblastoma. An alternative clinical diagnosis of fibrosarcoma was offered in one of these cases: two cases showed as lupus erythematosus. One showed as nevus and here an alternative clinical diagnosis of xanthoma was offered: one case showed as scleroderma (possibly): one case showed as endothelioma: one case showed as erythema (desseminated sarcoid was the clinical diagnosis).

Papulo necrotic tuberculid. In thirteen cases diagnosed clinically as papulo necrotic tuberculid the histologic interpretation resulted as follows: eight cases showed as inflammatory process. An alternative clinical diagnosis of lichen nitidus was offered in one case and of pityriasis lichenoides varioliformis in another: two cases showed as syphilis: two cases showed as fibroma; one case showed as molloscum con-

tagiosum.

Lupus erythematosus. In seven cases diagnosed clinically the histologic interpretation resulted as follows: two cases showed as vesicular dermatitis: two cases showed as sarcoid, one of Boeck type, the other of Darrier roussy type. Three cases showed as inflammatory process.

Granuloma annularc. In one case diagnosed clinically as granuloma annulare a histologic report of fixed erythema was returned.

Lichen nitidus. No cases in disagreement.

Class 3 (Revealed Microscopically)

There were nineteen cases in which the clinical diagnosis was other than a disease of the group but in which microscopic examination identified a disease of the group. They are given as follows with the clinical diagnosis and the histological report:

Epithelioma: 4 cases. 1 T.b. cutis; 2 Boeck's sarcoid; Lupis des. fac 1.

Hodgkin's Disease: 1 case. T.b. cutis. Hansen's Disease: 2 cases T.b. cutis and Darrier roussy. T.b. cutis (no question. Blood vessels at periphery dilated and enlarged). (Tubercles with necrosis and fibro tissue change.)

Syphilis tertiary: 2 cases Acne keloid: 1 case. Miliary lupus (later proven clin.)

Lichen planus: 3 cases. Lichen nitidus 1; Boeck's sarcoid 1-oid, can't place, 1.

Mycotic nodules (tape worm): 1 case. T.b. cutis (classical tubercles).

Lichenified eczema: 1 case. Lichen scrofolo-

sorum.

Keratosis: 1 case, Tuberculoid structure (can't place).

Granuloma inquinale: 1 case. T.b.c. vs. syphilis

leaning to t.b.

Acne vulgaris: 1 case. Tuberculoid. Pityriasis ruba pilaris: 1 case. Lichen nitidus.

A comparative summary of the cases in Class 1, 2, 3, is shown in Table II.

Comment: It is interesting to note that, in spite of the fact that lupus erythematosus does not present a consistent characteristic histologic picture, confirmation was obtained in a high percentage of cases. The histologic findings usually coincide with enough of the cardinal clinical signs to allow the agreement. That is hyperkeratosis, atrophy, pigmentation, erythema, telangicctasia are reflected in the microscopic picture. In addition a fair percentage show basophilic degeneration which is an aid to the histologist.

Class 4 (Unsatisfactory)

Thirty-two cases with clinical diagnoses were included in this group and with material considered unsatisfactory for histo-

logic interpretation or unreliable.

Of the reasons for failure the most common was the lack of depth of material. Also noted was material showing granulation tissue or fibrosis suggesting the fact that a better site could have been chosen for biopsy.

Included in the class were nine cases that histologically presented features of tuberculosis and syphilis impossible of definite

differentiation.

Conclusions

 Tuberculous or tuberculoid structure may be included or may be entirely lacking in histopathologic specimens of skin diseases in the group classified under tuberculosis.

2. Histopathologic studies of diseases in the group are valuable to the clinician, very often supporting the clinical diagnosis, frequently supporting an alternative clinical diagnosis and occasionally revealing unsuspected diagnoses.

Diseases of the group often imitate other dermatoses clinically and histologically. 136 East 64th Street

MEDICAL RADIO BROADCASTS

The Medical Information Bureau of the New York Academy of Medicine announces the following broadcast from Station WABC and the Columbia Broadcasting System netwo

Thursday, March 19, 1:45 p.m.—Speaker: Dr. Smiley Blanton, Assistant Professor of Psychiatry Cornell Medical School. Subject: "Stuttering-Speech Fear."

THE VALUE OF THE ERYTHROCYTE SEDIMENTATION RATE DETERMINATION IN PSYCHIATRIC CASES

Hugh S Gregory, M.D., Binghamton Pathologist Binghamton State Hospital

The phenomenon of erythrocyte sedimentation may be observed in some degree in all blood specimens to which some anticoagulative substance, such as potas sium oxalate or sodium citrate, has been added. The rate of cell sedimentation has been found to show acceleration, especially where there is clumping of the erythrocytes into large aggregations. Stoke's law reads, "The sedimentation velocity of the corpuscle, in a suspension of globular elements in fluid, is proportionate to the square of their radius"

A vast literature has accumulated concerning the clinical application of this test and many claims have been made as to its value, both as an aid in diagnosis and as a criterion of the progress of organic pathological states The diseases in which acceleration of sedimentation rate has been demonstrated are, generally speaking, those in which there is extensive inflammation, tissue cell destruction, or new growths As can be readily seen, these types of pathology include a large proportion of organic conditions There are several modifying factors which should be kept in mind A slightly higher rate is found in females than in males Diminished degrees of concentration of cells, as in the anemias, increase the rate 1 The longer the specimen of blood is kept before applying the test, the lower the rate is apt to be found?

Goldwin, of the Worcester State Hospital, reported normal rates in the functional psychoses except where marked mental deterioration or gross physical factors were present. He reported increased rates in semile psychoses, cerebral arteriosclerosis, neurosyphilis, mental deficiency, acute alcoholism psychoses with somatic disease, and in many cases of epilepsy and involution melancholia. Freeman, of the Worcester State Hospital reported normal findings in demential precox. Glaus reported normal rates in manic depressive insanity, psychopathia,

neurasthenia livsteria, and epilepsy. He found contradictory results in dementia precox, and increased rates in senile dementia, cerebral syphilis, and progres sive paralysis 5 Stephenson, of the Boston State Hospital, reported increased rates in infection, tissue damage, and pregnancy She also found the rate increased in many cases of mental defect who did not show the above pathology She did not find the rate increased because of mental deterioration 6 Opsahl reported increased rates in certain cases of dementia precox with accompanying physical disorders found that medicinal agents, such as barbital, trional, bromides and opium, did not influence the rate 7

The present study was prompted by the desire to utilize still another laboratory aid in detecting organic pathological states in psychiatric cases and the writer confesses to influence by the splendid writings of Osgood and Haskins of the University of Oregon Medical School, in which a modification of the Westergren technic is described 8 The practical suggestion by this group of workers that fourteen different tests may be applied to oxalated blood. including the erythrocyte sedimentation rate determination, seems a valuable one for mental hospitals. They advocate the use of oxalated blood for the following tests-hemoglobin estimation, red cell count, platelet count red cell volume color, volume and saturation indices, icterus index, Van den Bergh test, white and differential cell counts, peroxidase test, fragility test, and the sedimentation rate determination The writer feels that in many cases coming to mental hospitals there is an emotionally disturbing effect produced by repeated venipunctures, so that any plan which permits the perform ing of a great variety of laboratory procedures with a single sample of blood, not only serves to minimize this emotional factor with the patient but also proves to be a great saving of time and labor to the physician whose duty it is to collect the specimens. Also, although irrelevant to the subject of this paper, it might be added that the writer for the past three years has used the plasma from oxalated blood for both the complement fixation and Kahn tests for syphilis with excellent results and has routinely performed these tests together with sedimentation rate determinations, blood counts, blood chemical determinations, and so forth, with a single specimen of blood from newly admitted cases.

The technic of the sedimentation rate determination employed in this study is essentially that of Osgood and Haskins. The blood, collected in a tube containing two drops of twenty per cent potassium oxalate solution, is immediately agitated on being received at the laboratory to insure thorough mixing, and a Westergren tube is filled to the 200 mm. mark. tube is placed in a suitable rack to prevent the blood leaking out. These Westergren tubes are really pipettes of about 300 mm. length and 2 mm. bore and are graduated to 200 mm. from the tip. They are purchasable from any laboratory supply house as are also suitable racks to hold However, it is possible to insert the tip of such a tube in a hole bored onehalf the distance through a rubber stopper, the hole being made slightly smaller than the outside diameter of the tube. stopper is then inserted in a hole in a wooden block which is bored to hold such stoppers, and thus the tube is held in a vertical position and the conditions of the test easily complied with. The tube so filled, is allowed to stand for forty-five minutes, and the number of millimeters of sedimentation of the cell column is noted at the end of fifteen minutes and again at forty-five minutes. fifteen minute reading is subtracted from the total forty-five minute drop and the difference divided by two. The number of millimeters drop for the first fifteen minutes is compared with this quotient, and the greater figure of the two is called the "sedimentation rate." This figure rarely exceeds six millimeters in normal controls and is often found to be only one or two millimeters. While this technic differs somewhat from the methods employed by other workers, notably that of Linzenmeier, it is more easily applied to large numbers of specimens and does not require constant attention during the period of observation. An alarm clock aids the worker in performing the test by permitting him to attend to other duties in the intervals between readings.

The following observations with the blood of 1,102 psychotic cases are briefly reported to show our experience with this test at the Binghamton State Hospital during the past three years. While the number of cases studied seems to be large, it was found on separating them into their diagnostic groups according to psychosis, that some groups are too small to afford convincing results. These results are reported, however, without apologies as it seems possible to draw certain conclusions from them. this procedure has been continued longer, a much greater variety of disease conditions will have been encountered and a more comprehensive interpretation will then be possible.

To enumerate all the assigned causes for the increased rates found by this study would be impracticable, so only brief generalizations will be made. For ease of presentation some of the observations have been tabulated. (See accompanying tables.)

On studying the causes of the relatively few increased rates found in the so-called "functional" group of psychoses it was found, with an occasional unexplained exception, that all were due to intercurrent diseases such as dental infections, gingivitis, acne vulgaris, urinary tract infection, respiratory tract infection, new growths, and so forth. Several high rates seemed to be due to recent inoculations against small pox, typhoid, and diphtheria. Generally speaking, increased rates were more frequent in older people but only because of the more frequent occurrence of physical disorders. The acute excitements of the manic group, with the tendency to bruises, exhaustion, and dehydration, also seemed to predispose to higher

In the group of organic psychoses, the high rates seen in many senile and arteriosclerotic cases are explained by the frequent occurence of terminal cardio-renal, respiratory, and other diseases common to persons of advanced years. Occasional

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cases, with extensive cerebral hemorrhage or softening, gave high readings. The increased per centum in the group of psychoses with somatic disease requires no comment

The findings in the group of cases of general paralysis proved something of a surprise for there were found relatively

EXAMPLES OF CASES SHOWING GREAT ACCELERATION OF RATE

	Rate mm
Draining colostomy opening	50
Brain tumor	60
Pernicious anemia and cystitis	80 36 38
Cellulitis of arm	38
Carcinoma of stomach	35
Cardiac infarction	50
Of struction of appendix with hydrops	40
Carcinoma of stomach	42
Mastit's 2 weeks post partum	75
Terminal uremic state	35
Suppurative os coarthritis of foot	94

AVERAGE RATES IN MORE COMMON DISEASES

Disease	Average rate	No cases
Cystitis	15 mm	15
Nepl ritis	17	38
Asthma	21	. 2
Acute respiratory infection (colds)	13	18
Influenza	21	7
Cellulitis	28	3
Carcinoma	23	8
Pituitary adenoma	13	2
Dental caries	13	9
Adenoma of thyroid	13	3
Reactions to vaccines	13	9

SUMMARY OF FINDINGS BY PSYCHOSIS (FUNCTIONAL GROUP)

	No of cases Normal		Increase No %	
Psyclosis				
Dement a precox simple	5	5	0	00 0
Dementia precox Heb	19	14	5	26 3
Dementia precox Cit	34	29	5	14 7
Dement a rrecox Par	161	140	21	13 0
Manic depressive name	70	51	19	25 7
Man c depressive dep	116	95	21	17 2
Man c depressive circ	3	3	0	00 0
Manic-depressive m xel	25	22	3	12 0
Involv melancholia	24	18	6	25 0
Psychopath c personality	84	72	12	14 2
Psychoneuros s	49	41	8	16 3

SUMMARY OF FINDINGS BY PSYCHOSIS (ORGANIC GROUP)

_	No			li crease	
Psychosis	of cases	Normal	Nο	%	
Traumat c		4	2	33 3	
Huntington's chorea	2	ż	ō	òo o	
Pellagra	2	ō	ž	100 0	
Drugs and other exog toxin	s 3	ž	Ť	33 3	
Other brain and nery dis				•	
eases	14	9	5	35 7	
Other somatic d seases	14	5	9	64 2	
Senile psychosis	25	13	12	48 0	
Cerebral arteriosclerosis	226	144	82	36 2	
Alcoholic	51	37	14	27 4	
Fptlept c	12	7	5	41 6	
Ceneral paralysis	93	65	28	30 1	
Cerebral syphilis	3	2	i	33 3	

Those cases in few extremely high rates which accelerated rates were found, showed no correlation with the degree of meningitis present, as shown by cerebrospinal fluid cell counts Some high rates were obviously due to intercurrent dis eases but the balance must be tentatively atttributed to tissue alterations due to the activity of the spirocheta pallida in nervous and other structures. As shown in one of the tabulations, sixty five of the ninetythree cases of parests were found on admission to have normal sedimentation An occasional case of acute lepto meningitis due to progenic organisms, showed high acceleration in contrast with the more chronic type of meningerl inflammation seen in general paralysis

By way of control, twenty one determinutions were made with blood specimens of supposedly normal non psychotic persons and all the results obtained were within normal limits

The comparative value of potassium oxalate and sodium citrate as anticoagulints was observed in a small series of duplicate tests, and the former seemed to give slightly more accelerated rates. There was however, very little difference

Conclusions

The erythrocyte sedimentation rate de termination, based on the study of blood specimens (oxalated) from 1102 newly admitted patients to the Binghamton State Hospital over a period of three years, seems to permit the following conclusions

1 It is not diagnostic of any particular

psychotic group

2 It is a valuable diagnostic and prognostic aid in evaluating organic path ology in all types of mental cases often revealing the presence of previously unsuspected disease and giving an indication for further physical diagnostic studies

3 Higher rates were obtained in the group of organic than in the group of functional psychoses because of the more frequent occurrence of inflammations, new growths, tissue degenerations, and so forth

4 The test is sensitive to acute respiratory infections including the common cold, and to immunization inoculations which must be ruled out in searching for underlying pathology.

- 5. Potassium oxalate is a satisfactory anticoagulant making it possible to apply the test with oxalated blood specimens sent to the laboratory for other types of examinations.
- 6. The technic is so simple as to make the test a boon to the private practitioner as well as to the hospital pathologist.

The appreciation of the writer is acknowledged to Dr. William C. Garvin, Superintendent of the Binghamton State Hospital, for his interest and encouragement in making this study possible and also to Dr. Clifford E. Howard, physician in charge of the reception hospital, for collecting the oxalated specimens of blood in this large series of cases and for furnishing the clinical findings in these cases which has enabled the drawing of deductions as to the value of this test.

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AMERICAN COLLEGE OF SURGEONS SECTIONAL MEETING, MARCH 26-28, 1936

The Sectional Meeting of the American College of Surgeons at Buffalo is to be held March 26, 27, and 28, 1936. Headquarters will be at the Hotel Statler. The participating states will be New York and Pennsylvania, and the province of Ontario.

The program includes operative clinics in the Buffalo hospitals in general surgery, eye, ear, nose, and throat surgery, and the other surgical specialties; medical motion pictures; scientific sessions; and a hospital standardization program consisting of addresses, round table conferences, discussions, demonstrations, and visits to local hospitals. A Community Health Meeting will be held on the evening of March 27, to which the public is invited.

Fellows of the participating states and province and a group of visiting surgeons will furnish the program for the scientific sessions. Among the visiting surgeons who will be present to participate in the various

programs are:

Frank E. Adair, M.D., New York, Attending

Surgeon, Memorial Hospital. Frank H. Lahey, M.D., Boston, Surgeon, New England Deaconess and New England Baptist Hospitals.

Robert B. Greenough, M.D., Boston, Consulting Surgeon, Massachusetts General and Collis P. Huntington Memorial Hospitals.
Frederic W. Bancroft, M.D., New York

City, Associate Professor of Clinical Surgery, Columbia University College of Physicians and Surgeons.

Perry G. Goldsmith, M.D., Toronto, Professor of Oto-Laryngology, University of Toronto Faculty of Medicine.

William J. Engel, M.D., Cleveland, Surgeon, Cleveland Clinic Hospital. Charles L. Scudder, M.D., Boston, Consulting Surgeon, Massachusetts General Hospital.

Grover C. Penberthy, M.D., Detroit, Associate Professor of Surgery, Wayne University College of Medicine.

Malcolm T. MacEachern, M.D., Chicago, Director, American College of Associate Surgeons.

Bowman C. Crowell, M.D., Chicago, Associate Director, American College of Surgeons. Jolly, Houston, Superintendent, Robert Memorial Hospital.

EXAMINATION FOR UNITED STATES PUBLIC HEALTH SERVICE

An examination for entrance into the Regular Corps of the United States Public Health Service in the grade of Assistant Surgeon (medical only) is to be held April 13. Applicants must not have passed their thirty-second birthday. They must be graduates of a reputable medical college and have completed at least one year of internship since graduation, or its equivalent. The compensation is \$3,158 per annum with dependents and \$2,699 without dependents. Boards will be appointed in various cities so as to cause as little travel as possible, which, if necessary, must be made at the candidate's own expense. The examination will consume about one week. Persons desiring to take this examination should make request to the Surgeon General, U. S. Public Health Service, Washington, D. C., for blanks and information.

A tropical fever spread by mosquitos that are able to survive bitter Siberian winters is among the by-products of studies now being made of eternally frozen soil by Soviet scientists.

THE TREATMENT OF GASTRODUODENAL ULCERS AS AN OFFICE PROCEDURE

ANTHONY BASSIER, M D, New York City

The contact man in the ulcei case is most commonly the general practitioner Because his role is large he may not be the most capable in instances of ulcer that tax even the skill of the specialist Each has his place in this field Deducted from the study of any condition in medicine the specialist should pass on that of the worthwhile in routine and particular satisfaction to general practitioners of medicine This is one of the responsibilities of specialists not observed to the extent that it should be There have been cases of ulcer which the general practitioner has handled as well as a specialist. But there have been many in which this was not so, and this even in the uncomplicated case

Peptic ulcer is now supposed to be a systemic disease. This is only an assumption predicated on a diverse lot of clinical findings met in miny cases. The play of constitutional emotional, and local factors influences results of treatment. Thus these patients should be examined thoroughly for any constitutional condition that lowers the resistance of mucous membranes or restricts reparative processes. Quite obviously the treatment of ulcer comprises also the treatment of other conditions of the body in addition and the results both medical

having infected tonsils teeth sinuses and other focal infections controlled, and by paying attention to bacterial intestinal states without using ulcer diets, alkalies etc.

and surgical are considerably conditioned

by these Not a few ulcers are cured by

As a rule the lesion occurs in regions which are in contact with hydrochloric acid. There has never been an ulcer case with symptoms that did not have hydrochloric acid in the stomach and it is agreed that its control or neutralization is beneficial. It can be taken as definite that if an ulcer is present and there is no hydrochloric acid, there are no symptoms from the ulcer. Therefore the use of alkalios is essential but not to the extent of alkaliosis (even of moderate degrees).

which is especially liable to happen in the Sippy method because in addition to the excess alkalies, it is a low silt type of diet. The establishment of distinct degrees of alkalosis is almost as harmful to a cure as to use no alkalies at all

A study of cure statistics from bed handling of different observers shows them mentioned from thirty-five to sixty Matching one hundred ambulatory clinic cases of ulcer with one hundred private cases handled in bed on the basis of results from the immediate handling and follow up for twelve months. shows practically the same results is interesting in that the clinic cases generally were poor, ignorant types of people, difficult to control, and limited in home environments, while the private cases were a much more superior lot The final result of this experience is that every case of noncomplicated ulcer in the author's private practice today is handled as an office procedure In 492 private cases since that time there have been but fortyone in which operations were advised This does not mean that ninety-two percent of them are cured of their ulcers, but it does mean that in two year observations twenty six percent of them are free from symptoms, forty-two percent have very few and insignificant conditions while twenty-four percent showed moderate improvements, leaving but eight percent judged as unimproved

Comparing this with the best statistics on hand of those who hospitalize all cases of ulcer for approximately four weeks it matches up very satisfactorily and obviates the atavistically held opinion that bed treatment is essential

There is only a small percentage of ulcer cases in which bed treatment is wisest. These comprise those in whom study is a requisite, frank hemorrhage cases—where more or less continued bleeding is present—those that are truly surgical at the time of seeing them first, the perforated, the organic obstruction of the pylorus, the occasional case where for economic or domestic reasons control of

diet or a rest in bed seems indicated, and the case, especially gastric, where the x-ray defect remains constant.

One must not forget in this whole affair that ulcer is essentially a chronic disease, and that putting instances of chronic disease to bed is not accepted as a universal essential of therapy. Another thing to be remembered is that ulcer is characteristically a remissive disorder. Even the bed case must return to civil life, and that the main essential in treating this disorder is the education of the individual who is valueless unless he can carry out his instructions in connection with daily life. Also, there is the convenience of making x-ray studies which private patients are willing to engage in if they can continue their work during the time the observations are made. relapses that occur from fatigue, emotion, and infection affect the individual when up and around, and it is illogical to put the patient to bed for four weeks each time the relapses occur. Exhausting work is the cause of relapse in one-fourth, emotional excitement, worry, and grief in one-fifth, and infections in one-seventh. Certainly colds and grip and metabolic affairs are factors of moment. reliably reported that among the 25,000 agents in the Metropolitan Life Insurance Company there are thirty-five cases of ulcer in every thousand. These are all hard-working people who are on their feet a great deal. For economic reasons they cannot be put to bed; and, since our hospital experience shows only a very occasional one that perforates or has frank hemorrhage, it is questionable that treatment is necessary.

Ulcer is rarely a fatal disease, and death from it will be less common in the future. Watched over a course of years, only about one-half of the ulcer cases that die expire from ulcer; and of these about one-fourth die from hemorrhage, onethird from perforation, and a little less than one-half from obstructions and complications. Viewing surgery from a medical standpoint it is not without interest to observe that, while surgery gives a higher percentage of continuous relief, surgical failures are more than double that of medical failures, and the proportion of satisfactory results is distinctly In this, of course, one must lower.

appreciate that the surgeons operate upon the more serious and intractable cases such as perforation, obstruction, etc. Surgery, however, appears just as unable to alter the course of peptic ulcer as medical treatment, a matter that probably will be improved if attention to general health and after care were insisted upon by surgeons to the extent that they are being carried out by the medical men. This probably explains the better results in the average case from medical handling than surgical.

The first item in the handling of the uncomplicated ulcer case is the diet which should be balanced, consisting of fluid or finely comminuted foods, bland and non-irritating, with restrictions on alcohol, condiments, carbonated fluids, and the use of tobacco. The following plans are preferred in the ambulatory handling:

Diet for First Month

This diet is a temporary one and is to be continued until a change is made. The plan is not to partake of any solid foods whatsoever and to take the foods that are suggested at regular intervals of three or four hours during the day, attention being paid that a strict regularity is preserved and that the foods are divided rather evenly in quantity for each time.

A glass of plain fresh milk and perhaps a few crackers should always be taken before retiring, and an extra glass of milk during the night if there is distress in the stomach.

The diet consists essentially of only four foods, namely, eggs, fresh milk and cream, well-cooked cereals, bread and crackers; nothing else in the food or fluid line (except plain water) should be taken. Butter is allowed.

The eggs may be eaten raw or cooked in any form, or may be taken in the milk. The milk may be warmed if desired, but should not be taken too hot or too cold. The "ten minute" modern breakfast foods or any forms of oatmeal should not be eaten, the old-fashioned forms of ground corn, farina, rice, tapioca, or sago, well-cooked, being the best. The bread should not be too fresh (one day old); any of the sweetened or unsweetened crackers can be used and all forms of simple cake, providing there are no nuts, raisins, seeds or preserved fruits in it.

The total amount of food in one day should be—four eggs, one quart (4 tumblerfuls) of milk, one-quarter of a pound of fresh unsalted butter, or one-eighth of a pound of butter and an extra quart of milk,

two rolls or four medium thick slices of white bread, one-quarter of a pound of baker's cake or crackers, one-half pint of fresh cream, and one-quarter of a pound of cereal (weighed dry). This represents 3700 calories, and in instances, modification of quantity is permitted.

Diet for Second Month

Now the 8, 12, 4 and 8 o'clock meals are diversified with the following selections, plain milk (not fermented) being taken midway between the meals and alkaline powders, one hour after each feeding:

Purees or creamed soups (barley, rice, peas,

beans, celery). Gruels (flour, cracker, barley, Indian meal, farina).

Plain crackers, baker's cake, pound cake, toast, rolls, jellies, rice, tapioca.

Ground or mashed vegetables,

Puddings, rice, tapioca, bread, cracker.

Custards, vanilla and chocolate, blanc mange, whips and souffles.

Gelatins-flavored with any fruit or berry juice. Plain ice cream-not too cold.

Malt-milk cocoa, cocoa, chocolate, Diet for Third to Sixth Month

The general plan of this diet is to take three moderate sized meals at regular intervals during the day, and to take supplemental meals of milk, re-enforced with cream, cocoa and crackers between meals and before retiring. Altogether, foods should be taken at least five times during the day.

All of the solid foods should be tender, cut very fine on the plate, and thoroughly

masticated before swallowing.

The foods permitted for the main meals are:

Beef, lamb, and chicken, roasted or broiled and taken only once a day. Fish, any kind and in any form excepting

fried, taken once a day, Eggs in any form, other than fried, and taken

once a day.

Cereals (with the exception of oatmeal and shredded wheat biscuits) well-cooked and taken with cream in the morning.

Vegetables—any that are well-cooked and mashed with the exception of green vegetables. May have the tubers, such as baked or wellmashed white potatoes, squash, parsnips, and turnips.

Desserts-any made of milk, cereals, and jellies.

Do not take fruits, berries or nuts,

Butter, cream, milk and cereals, and eggs still remain the main foods of the daily diet, If the symptoms become marked again these should be the main articles of the diet for a while, when the more general plan may be followed.

The best drink at the meals is Vichy Celestins or any alkaline water (Kalak, Saratoga). Remove all the fats from foods.

Diet After Sixth Month

At the end of six months a normal diet is employed.

Foods that should not be partaken are:

One or two minute cooked breakfast foods. The rough vegetables such as cabbage, sprouts, cauliflower, artichokes, asparagus, beets, celery, corn, cucumbers, kohl rabi, onions, and tomatoes.

Foods which contain pits, seeds or skins or

nuts.

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Canned or smoked meats or fish. Lobster, crab or shrimp.

Cheese of any kind except Philadelphia or Neufchatel. Too much pastries, especially those cooked in

molten fat like doughnuts, fritters, etc.

Foods that are too sweet, such as jams, etc. Coffee, strong tea, alcoholic and malt beverages are not allowed.

Do not eat fat from meats and keep on a non-fat plan. Smoking is not good for these patients.

Instruct patients to report at once if any stomach symptoms arise.

Rest each day in the supine position is increased from the usual eight in twenty-four to nine, ten, eleven, and This should be insisted twelve hours. upon, the first month being twelve hours, the second eleven, and so on down to eight hours a day. No extra exercises are allowed, simple walking is sufficient for the first three months of treatment, all activities being reduced to a minimum. Either one of the accompanying alkaline

ALKALINE PRESCRIPTIONS

Magn. Calcined Bismuth Subcarb Sod. Bicarb. Sacch, Lactis ää 15.0 F & M Pulv.

Sig. Take 3 f in water P.C.

R Sod. Bromide Mag. Usta Bismuth Subcarb. Sacch, Lactis 15.0 F & M Pulv.

Sig. Take 3 f in water P.C.

Ext. Belladonna grs ttt Mag. Usta 3 55 Sod. Carbon. Excsic. Bismuth Subcarb. F & M Pulv.

Sig. Take 3 t in water P.C.

formulas can be used and in those not containing belladonna or atropine, an atropine tablet of 1/100 gr. is given at bedtime to control the night gastric secretion. Effort is made by changing the formula, kinds and doses of alkalies. to render the urine amphoteric, the patient using litmus paper to observe this. If the pain does not subside in a week's time, subcutaneous injections of aolan may be used since often a foreign proteid product There is no like this may be helpful. objection to Synodol, Larostidin and like products, but they should not be depended upon alone. The bowels may be regulated by magnesium oxide. Iron injections are employed in anemia and the patient should be warned against taking cold and becoming excited by business and family troubles, movies, shows, etc.

X-rays should be taken each month, the course watched especially when there is slow bleeding or a question as to the type of pyloric obstruction that is present. These films should be matched as to defects, peristaltic phenomena, etc.

Treatment should not stop with the clearance of symptoms. In the instances of relapse one should not lose faith and impatiently to more There are quite a number of measures. these patients who have gone through two or three courses of medical handling for remissions and then become substantially It is impossible to know what will happen in an individual instance of uncomplicated ulcer. The more one sees of ulcer cases in results, the less definite one can be. If, however, bleeding continues, the pyloric obstruction has not abated (making allowance for the slow emptying stomach pylorus nonobstructed), and the defect continuing or enhancing and the complaint and patient's general condition is not markedly improved, operation should be considered, but it should not be advised on relapses alone unless the complications mentioned are present when the case is first seen or has become definite during the observations.

About one-quarter of all ulcer cases have a drip bleeding at least at some time.

These when seen first should be treated medically. In the instance of frank and alarming hemorrhage, the treatment is medical also, usually with the addition of enforced complete physical rest and bed treatment for a while with frank doses of morphine, ice water lavage of the stomach, and dram doses of adrenalin chloride solution. Hemorrhage from an ulcer, even a frank one, has only one percent danger of death. Surgical intervention does not control hemorrhages at the time or prevent future bleedings any better than does medical treatment. However, these cases should be viewed as surgical possibilities during the medical handling and must be closely watched with this in view. Excepting in perforations (which require prompt surgical handling), one should hesitate about operations when the stomach secretion is high. It is difficult to reason why this is more dangerous. A half played-out stomach stands operation best, and generally the patient recovers from the operation with a good result.

Finally, the guarding against alkalosis by the litmus paper method is a satisfactory clinical guide and obviates frequent blood chemistries. Small doses of mercury bichloride and trioxide of arsenic thrice daily by mouth does something in healing ulcers. The plus Wassermann or Kalın case needs specific additions, preferably administered hypodermically. The Sippy method for bed handling is as satisfactory as any. However, the Lenhartz or others are quite as satisfactory and often less troublesome to carry out. All of these are not practical in dieting when out of bed. To them, although, the evening dose of atropine is a worthwhile addition.

Summary

A method for the ambulatory treatment of ulcer is offered, one that has proven of value to the exclusion of bed treatment.

A dietetic plan for months of handling

is presented.

A simple method to control alkalosis is given. 784 Park Avenue

A New York doctor, treating an old lady for rheumatism, was flexing the fingers of her right hand. "That hurts, doctor," she

said, "what do you do that for?" "I want to keep your fingers limber," he replied, "so that you can sign checks!"

GALL-BLADDER DISEASE

MALCOLM H V CAMERON, FACS, FRCSC, Toronto, Canada

Experience with disordered biliary function differs with type of practice Both the general practitioner and internist know most about its earliest manifestations and are best qualified to evaluate the results of treatment. The surgeon meets with it after signs have been added to symptoms and is often asked to rescue a patient after serious damage has been sustained. The sufferer from biliary disease is fortunate when he finds an internist who realizes the necessity for surgical interference when it arises, and a surgeon who belongs to the highest order of his craft is an internist who can operate

The earliest complaint of the patient with this disorder is dispepsia and there are many studies to prove the assertion that dyspepsia caused by an organic lesion originates in half the number of cases in

the gall-bladder

The oft-quoted study of Alvarez reveals that of 500 patients who complained of indigestion, 175 of them had organic disease and of these seventy seven were diagnosed as cholecy strits or cholelithiasis. A large group studied by Blackford and Dwyer showed 1,650 patients with organic dyspepsias. The causes were listed as to percentage. Gastric ulcer, 4, gastric cancer, 8, reflex appendix, 16, duodenal ulcer, 24, cholecystitis, 48

When a patient asks for relief from disturbed digestion we carefully go over the listory Age is important for though there are many instances of cholelithiasis in the very young and many more in the very old, the fifth and sixth decades will be noted most frequently. Sex is important because women outnumber men by four to one in all large tables of statistics in this disease. Occupation may be of less importance. The duration of the symptoms must be ascertained.

A short history of dyspepsia in a patient past middle life is much more indicative of gastric cancer than any other lesion. A long history with symptoms noted day by day suggest gall bladder disease if visceroptosis is ruled out.

Should there be added intermittent attacks of colic, calculi in the gall-bladder may be assumed to be present

The individual symptoms are then

taken up one by one

Pain This amounts only to discomfort excepting when a stone passes or attempts to pass the cystic duct. The pain is then very severe and is characterized by regular accessions and remissions. At the onset the distress becomes more and more severe with each accession until it seems to the patient to become unremitting Close observation shows that there are remissions and that a true colic exists Graphically the spasms resemble the temperature chart of lobar pneumonia rather than that of septicemia As time goes on the daily discomfort increases and the range of radiation widens The right subscapular ache is characteristic of a well established inflammation of the gall bladder associated with Should the pain be of extreme severity and if accompanied by pyrexia, acute cholecystitis is to be borne in mind, and if by chill and fever the inflammation may be assumed to have extended into the liver radicles

Vomiting may or may not occur It gives immediate relief in gastric ulcer, partial relief in cholecystitis, and none in gastric

cancer

Appetite in gall-bladder disease is usually good but may be impaired by flatulence Food selection is practiced on the principle of trial and error Seldom is one of these patients seen who can tolerate a raw apple Other foods may sometimes be digested in comfort though severe upset may follow their ingestion on another occasion. If the patient be a man he should have a wife who is able to secure any food material-vege table or animal-to order or attend to its preparation, who is able to answer all his objections out of a knowledge of physiology and biochemistry, and who is a saint and the apotheosis of patience as well She would understand the statement of the late C S McVicar who said that if you are with a man when his attack comes on he will hurry to the Litchen for some baking sody if he has duodenal ulcer, but he will stand and argue with you if he has a gall

Loss of weight is not a symptom as it is in cancer of the stomach or pancreas, but sudden and marked loss follows impaction of a stone in the common duct.

Constipation of the spastic type is usual

and may be of marked severity.

Mental depression may be quite marked and change of disposition increases as the disease progresses.

The signs may not be obvious. Tenderness complained of when the gall-bladder is palpated indicates that the disease is acute or that a chronic process is well-advanced. Evanescent jaundice due to congestion in the mucosa of the common duct may follow an attack of colic. Obstructive jaundice should mean stone in the common duct until proven by operation to have been caused by carcinoma or other internal cause.

Cholecystography should be used as a means of estimating function in the gall-bladder. A functionless gall-bladder harboring stones is a menace to the body and should undoubtedly be removed.

The author does not advocate surgical interference in acute cholecystitis. Mc-Kinty of Montreal and some others draw an analogy between acute cholecystitis and acute appendicitis. Their views are not widely accepted. The author was taught a severe lesson once by removing a gall-bladder four weeks after an acute attack; in thirty-six hours the patient was dead from septicemia, the culture of the blood showing a heavy growth of streptococcus. Months rather than weeks should be allowed for the inflammation to subside.

There is one condition in which acute cholecystitis should be treated as an emergency. In 1925 the author reported seven cases of acute gangrenous cholecystitis, and in the next five years eight additional cases came to his service in St. Michael's Hospital. The first case was diagnosed as perforation of a duodenal ulcer. The case was operated six hours after the onset and, as the author packed about the colon, the unsupported gallbladder separated from the liver and hung by the cystic duct. A clamp was applied, which cut through the pedicle freeing the gall-bladder. A ligature was applied and the cholecystectomy was completed. Another one came to operation on the fourth day and the same thing happened except that when the clamp was closed it came off with the gall-bladder. The

vessel was secured but this patient died. The first one recovered.

In the other cases the gall-bladder was drained following removal of stones and in three of them a cholecystectomy was done some months later. (The author having read everything available on this condition is forced to believe he has had a unique experience. Many surgeons with wider experience have never encountered a similar case. Torsion of the gall-bladder he has never seen.)

In all of these cases the differential diagnosis was most difficult. In all of them the onset was sudden, the abdomen exhibited true rigidity, there was fever and a high leukocytosis. These are mentioned only as a warning that an acute cholecystitis may not run true to form and that the established rule of expectant treatment may in the rare instance lead to catastrophe.

In chronic cholecystitis there is an optimum time for interference. As the gall-bladder gradually ceases to function, there develops a compensation in the liver and ducts. The intestine becomes accustomed to a lessened inflow of concentrated bile and physiological adjustment follows. Removal of the gall-bladder is then the breaking of a vicious circle of infection from the gall-bladder walls to the liver, from the liver to the bile, and back again to the gall-bladder. The detoxicating function of the liver thus becomes impaired and all metabolic processes are depressed.

There has been much speculation upon the source of the infection in cholecystitis. Following the report of Rosenow's work and, later, the thesis of Wilkie, the author began the practice of sending in a sterile container to the laboratory for bacteriological study as well as section every gall-bladder removed. As frequently as possible a small section of liver tissue was included. A colleague, Dr. Michael's Magner, pathologist to St. Hospital, made cultures from the content, from the mucosa, and from the walls of the gall-bladder after the mucosa had been carefully removed. He found "typical" streptococcus in twenty-five per cent of the chronically inflamed specimens submitted. In every case in which liver tissue was examined with the excised gallbladder hepatitis was found along with the chronic cholecystitis.

Injections of cultures so obtained when injected into the lumen of the gall-bladder or portal vein of rabbits produced chronic cholecystitis in fifty per cent of cases. Injections under the serosa of gall-bladder in rabbits produced chronic inflammation in every case. These observations do not clear up the problem of the source of infection but they do seem to indicate that the digestive tract is more generally the source than are more distant foci such as teeth or tonsils. Whether hepatitis precedes or follows cholecystitis is still debatable.

The formation of calculi is a usual event in the course of chronic cholecystitis. They form in the intrahepatic ducts in rare instances and frequently in the extrahepatic ducts in cases of stricture following cholecystectomy. Gallstones seem to exist in a number of people who do not present the symptoms of gall-bladder disease. Postmortem statistics covering many thousands of autopsies have established this fact beyond peradventure. Thus although infection is a cause of the formation of biliary calculi there must be other factors which act with or without inflammation in their formation. These factors include disturbance in cholesterol metabolism, pregnancy, lack of vitamin A in the diet and, according to Dr. George Draper of New York City, a definite hereditary predisposition in people of certain skeletal

Gallstones may pass through the cystic and common ducts. The author is informed that Dr. Hugh Auchincloss is an enthusiastic hunter after such trophies and that he is frequently rewarded for his unpleasant search, vicariously conducted by his house surgeon, by the finding of a calculus after a patient has suffered a bout of biliary colic. The author knows of one old lady who had a severe attack in her forties with one recurrence thirty years later. She is now eighty-three and

has never had dyspepsia.

Cholecystectomy is the operation of choice with certain exceptions. Cholecystostomy is not to be disdained. In a fulminating inflammation it is, presumably, the only thing to do, and in obstruction of the common duct, choledochostomy and the removal of stones from the gall-bladder may be all that can safely be done. Should stricture follow drainage of the

common duct, an intact gall-bladder may be very useful as a means of diverting bile into the stomach or duodenum.

Obstruction of the common whether partial or complete calls imperatively for surgical intervention unless one can positively ascribe the symptoms to an allergic cause. An experience with this extremely rare condition has been reported by Graham in his book. Should the obstruction be partial one may choose a favorable opportunity to operate. These obstructions are usually due to calculi which may lie anywhere in the length of the duct. They may be due to external pressure from neoplasms in the pancreas or to carcinoma of the bile ducts. The latter condition is less frequent than is carcinoma of the gall-bladder, but it does occur in a small proportion of cases. The author's two cases were encountered in a month: a colleague in Toronto found two

in one week during September of 1934. Every patient with common duct obstruction should be offered the benefit of operation. Should carcinoma be found the bile may be carried past the obstruction by an anastomosis of the gall-bladder with stomach or duodenum or by an end to side anastomosis of the severed common duct with the duodenum. In case the obstruction be from stone, as it commonly is, the clearing of the duct is a veritable

resurrection to the patient.

After removal of a stone from the common duct, prolonged drainage is required. Observation of the collected bile from day to day would bring the realization that a change appears from four to six weeks after the operation. The bile is at first heavy and mucoid. The drain provides relief of pressure and the hepatitis slowly subsides. The bile becomes more limpid and diffuses instantly when poured into water. Only after this change is definitely observed is it safe to discontinue drainage.

The T tube of Deaver has many advantages. By its use bile may be fed to the patient by the simple expedient of snapping an elastic band about the doubled end of the external drain. This should be done for an hour after every feeding. Lord Moynilan suggests that drainage by a catheter serves well and that patients do not suffer much from absence of bile in the bowel. The author most respect-

fully but very firmly refuses to agree. The liver is essential to life and bile is essential to effective assimilation of food. The object of the drain is to decompress the liver and so hasten resolution of the inflammation in its ducts consequent upon the obstruction.

By way of describing a simple method of management of drainage in an ambulatory patient, it can be said that it works equally well in the recumbent position and gives the patient more freedom than is possible with an attached tube leading to a receptacle outside the bed. An ordinary four-ounce dispensing bottle is provided with a feeding nipple instead of a stopper. The vent in the nipple allows equalization of atmospheric pressure at the same time preventing spilling in case the bottle should be overturned. The external branch of the T tube is passed through a small hole cut in the side of the nipple below the vent forming an airtight connection. The free end reaches down into the bottle. A sling made of adhesive plaster is used to fasten the bottle to binder or to a bandage about the neck of the patient if up and about.

The after-care of patients who have been subjected to cholecystectomy or choledochostomy may, in many instances, be a problem of considerable difficulty. Full restoration of function is a happy result devoutly hoped-for but rarely attained. Liver and pancreas have suffered in the long continued chronic inflammation and postoperative scarring has resulted in some degree of fixation of the duodenum. A new set of symptoms may develop which suggest duodenal ulcer. Reflex pylorospasm may occur and certain food intolerance become established. In a proportion of cases this intolerance is quantitative rather than qualitative. To forestall such events as these a regimen is prescribed copied from Van der Hoof in his article on duodenal ulcer. Six feedings in twenty-four hours with avoidance of cooked fats, raw fruits, condiments and meat extractives, and a minimal indulgence in the social poisons constitute the main features of this plan of management. By it, appetite is satisfied with a small intake at the regular meal times. The between meals and bedtime feeding is simply provided in a glassful of milk taken plain or flavored to taste.

In summary, experience in handling dyspeptic cases has shown that the removal of the chief cause of a patient's disability will always relieve him but may not be sufficient to effect a perfect cure.

170 St. George St.

SIX IN FAMILY OF SEVEN CONTRACT PNEUMONIA

Six cases of pneumonia which occurred within a period of one week in a family of seven who were living in close, overcrowded quarters were reported by V. A. VanVolkenburgh, M.D., in charge of the Tompkins county health district.

In five members of the family, a diagnosis of lobar pneumonia was made and in one, a child of two years, a diagnosis of broncho-pneumonia. The eldest of the family, the father, was the last to become ill.

According to Doctor VanVolkenburgh, the father was seen by the physician on the day of onset. Sputum was obtained from him and found to be Type I. Forty c.c. of state concentrated Type I anti-serum were administered promptly by the physician, followed twelve hours later by an additional 40 c.c. The results were excellent in that the patient's temperature dropped following serum treatment and was not observed to rise over 100 degrees thereafter. Toxemia was absent. The patient desired to return to work on the third day. Serum sickness

did not develop and there were no sequelae. The case was treated in the home. These results are typical of what may be expected when serum is administered early and in adequate amounts.

The mother, who did not receive serum, is reported as having developed empyema. The three children with lobar pneumonia and the smallest child are making satisfactory convalescence. The older children are, of course, in the age group in which favorable results might be anticipated.

In this group of cases, at least, the infectiousness of the organism was recognized by friends and neighbors, who would not enter the house. Because of this, it was difficult to obtain help in caring for the children when the father and mother became ill.

Doctor VanVolkenburgh reports that the physician in charge as well as his colleagues in the community are enthusiastic over the effect of scrum in the case of the father.

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SCARLET FEVER IMMUNITY

Production and Maintenance

A Study of Comparative Values of Raw and Modified Streptococcal Toxins

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The primary object of this study was to ascertain the possibility of modifying the toxic action (as shown by its skin-reddening powers) of streptococcal scarlatinae toxins, without destroying its ability to produce ininumity to scarlet fever (as indicated by inducing negative skin tests in previously susceptible individuals)

The occurrence of a number of mild cases of scarlet fever in Letchworth Villinge, a New York State institution under the Department of Mental Hygiene, necessitated the skin testing of its entire population for susceptibility to the disease. The Dick test was carried out in the accepted manner! of using one skin test dose (1 std) of streptococcus scarla timae toxin,* i.e., the amount sufficient to produce an erythematous area ten millimeters or more in its longest diameter, twenty four hours after being injected intracutaneously into the forearm of a susceptible person.

Around two hundred of three thousand inmates tested reacted positively and of these, less than a hundred and fifty were available for the complete study. These were divided into three groups (I, II, and III) as nearly comparable as regards age range as circumstances would permit. The immunizing injections were given at weekly intervals to all except ten patients in one group, whom for purposes of this study, fortnightly intervals were used.

The raw toxin of streptococcus scarla tinae was prepared and diluted as required by the standards of the Scarlet Fever Committee, the original strength bong forty thousand skin test doses per cubic centimeter (40,000 std/cc) Some of this raw toxin was oxygenated and the resultant material hereinafter will be referred to as Modified Toxin H 12, a second raw toxin having two hundred thousand skin test doses per cubic centi-

meter (200,000 std/cc) was treated likewise and will be referred to as Modified Town H 11

Other workers have prepared to ods by various methods as Zellinka and Kurrtt,² Veldee,³ and Zoeller using formaldehyde as the modifying agent Veldee and some others have used potassium alum for this purpose. The Dicks' however, do not agree that the toxin of streptococcus scarlatinae can be converted into a toxoid.

To determine the amount of unchanged raw to an remaining in the oxygenated insternls, a number of skin tests were conducted Small quantities of the respective oxygenated to an expective oxygenation on expecting the standard oxygenation of the standard oxygenation of the standard oxygenation oxyge

From these figures it is seen that onetenth cubic centimeter of the one in five hundred dilutions of each of the modified toxins gives a skin reaction of comparable size but less intense than the standard Dick test of one skin test dose Therefore, each cubic centimeter of the oxygenited material does not contain more than five thousand skin test doses (5,000 std) of raw or unchanged toxin

The immunizing injections were given to three groups according to Table II

A few reactions developed from the injections, the most severe ones being

1 In group I after the fourth dose of raw toxin (27000 std) three patients developed typical scarlet fever rashes

2 In group II, each of two subjects developed rather severe local reactions at the sites of injections of the first two doses of Modified Toxin H 12

3 In group III after each of the first and second doses of Modified Toxin H 11 four children run temperatures around 100°F for

^{*} All the materials for testing and immunizing were supplied by a well known manufacturer

twenty-four to thirty-six hours; two of these had an associated emesis of a mild type. Curiously enough only one out of these four sub-sequently became a negative reactor. A fifth individual developed a severe local reaction at the sites of each of the first two doses.

Two weeks after the last dose and again after a six-month interval the available cases of all groups were retested for positive reactors. Both times instead of the usual one skin test dose (1 s.t.d.) being used, a dilution of streptococcal

scarlatinae toxin was prepared in which

one-tenth cubic centimeter contained two skin test doses (2 s.t.d.). Also, instead of the usual ten millimeter reading, all readings of five millimeters or more in the longest diameter were considered as positive. Doubtful cases were retested and where still doubtful were recorded as positive.

It will be appreciated that while such criteria are more strict than the accepted standards, their use permits the presentation of results based upon definitely negative readings. (Table III.)

TABLE I

D-ti-u4	Standard	Originally 4	lificd Toxin H 12 0,000 s.t.d./c.c. Dil 1:100	utions 1:500
Patient	(1 s.t.d.)			
F.C. J.D. A.K. J.H. C.W.	10 x 10 P 10 x 18 P 10 x 12 P 15 x 20 P 10 x 10 P	21 x 30 P 15 x 30 P 23 x 37 P 35 x 50 FP 25 x 35 FP	20 x 17 P 12 x 27 P 17 x 25 P 26 x 30 FP 22 x 30 FP	8 x 7 FP 4 x 6 FP 11 x 10 FP 17 x 22 FP 8 x 10 FP
	Standard	Mod	lified Toxin H 11	
	Dick test	Originally 2	00,000 s.t.d./c.c. Di	lutions
Patient	(1 s.t.d.)	1:50	1:100	1:500
F.C. J.D. A.K. J.H. C.W.	10 x 10 P 10 x 18 P 10 x 12 P 15 x 20 P 10 x 10 P BP: Bright	20 x 35 P 17 x 30 P 21 x 24 P 40 x 25 P 22 x 21 BP Pink FP:	25 x 25 P 15 x 30 P 17 x 15 P 45 x 25 FP 19 x 15 FP Faint Pink	10 x 12 FP 10 x 10 FP 8 x 8 FP 15 x 10 FP 5 x 5 FP

TABLE II

Raw	oup I Toxin s,t,d,/c,c,		_	ip II Foxin H 12 i 40,000 s.t.d	./c.c. Equivalent
Weekly doses First dose Second dose Third dose Fourth dose Fifth dose	Amount 1 c.c. 1 c.c. 1 c.c. 2 c.c.	s.t.d. 550 2,200 8,800 27,500 88,000	Weekly doses First dose Second dose Third dose Fourth dose Fifth dose	Amount 0.1 c.c. 0.3 c.c. 0.8 c.c. 1.0 c.c. 1.0 c.c.	4,000 12,000 32,000 40,000 40,000
	6 c.c.	127,000		3.2 c.c.	128,000

Group III

Madified Taula II ve

01				
Amount 0.1 c.c. 0.3 c.c. 0.5 c.c.	Equivalent s.t.d. 20,000 60,000 100,000	Fortnightly doses First dose Second dose	Amount 0.1 c.c. 0.3 c.c. 1.0 c.c.	Equivalent s.t.d. 20,000 60,000 200,000
0.9 c.c.	180,000	•	1.4 c.c.	280,000
	Amount 0.1 c.c. 0.3 c.c. 0.5 c.c.	Original Strength 2 Equivalent Amount s.t.d. 0.1 c.c. 20,000 0.3 c.c. 60,000 0.5 c.c. 100,000	Amount s.t.d. Fortnightly doscs 0.1 c.c. 20,000 First dosc 0.3 c.c. 60,000 Second dosc 0.5 c.c. 100,000 Third dosc	Original Strength 200,000 s.t.d./c.c. Equivalent Amount s.t.d. Fortnightly doses Amount 0.1 c.c. 20,000 First dose 0.1 c.c. 0.3 c.c. 60,000 Second dose 0.3 c.c. 0.5 c.c. 100,000 Third dose 1.0 c.c.

TABLE III

Age-group Under 10 years 11-15 years 16-20 years 21-25 years Over 25 years	Ra Pos. 0 4 1 0	w Toxin Ncg. 10 14 8 8	Modified Pos. 1 5 4 2 2	Toxin H 12 Neg. 7 14 5 3	Modified Pos. 2 5 3 2	Toxin H 11 Ncg. 5 13 7 2 7
Totals Percentage negative reactors	6	88.0%	14	72.0%	12 7	3.9%

Two weeks after the last injections.

These findings are in keeping with the known facts that raw toxin is the most efficient agent for inducing negative reactions in susceptible persons. They indicate that the modified toxin retrins an immunizing power to a lesser but not incomparable degree. Also, that very concentrated amounts given over a shorter period than the raw toxin will produce a high percentage of immunes.

After a six-month interval under these stringent criteria, a considerable reversal of readings (Table IV) is shown by the skin tests at that period. The greatest drop occurs in those receiving the raw toxin while the group given the modified toxins show much less reduction. The changes in percentage, however, do not accurately represent the facts as may be shown by a study of the individual reversals of readings.

The findings as revealed in Table V

make it apparent that in any group of individuals, after a period of time there will be a considerable percentage of reversals of readings, so that one cannot predict which individuals will remain immunized or which ones will lose immunity

As the age-modence for scarlet fever hes between the fifth and fifteenth years, the readings of individuals in this group were compared to those of persons over fifteen years of age (Table VI)

Both age-groups show a similarity in number of negative reactors and of re-

versals after a six-month interval

In an experimental attempt to ascertain the effects of longer intervals between injections and, of using larger amounts of modified toxin, ten individuals in group III were given fortnightly doses as indicated in the schedule of injections (Table II) and compared with those

TABLE	īν
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	R	ato Toris	Modified	Torin H 12	Modified	Torin II 1
Age group	Pos	Neg	Pos	Nei	105	Neg
Under 10 years	4	6	2	6	1	6
11-15 years	8	10	8	11	6	12
16-20 years	2	7	3	-6	3	7
21-25 years	4	4	1	Ä	3	3
Over 25 years	3	2	3	6	4	3
Totals	21	29	17		15	21
Percentage negative reactors	21	58 0%		66 05 33	13 6	7 3%

Six months after last injections

TABLE V

At two weeks At six months	Raw Neg became Pos	Toxin Pos became Neg	Modified To Neg became Pos	Pos became Nes	Modified Nes became Pos	Toxin H 11 Pos became Neg
Under 10 years 11-15 years 16-20 years 21 25 years Over 25 years	4 5 1 4 2	0 1 0 0	2 6 1 0 1	1 3 2 1 0	1 4 1 0 2	2 3 1 1
Totals Percentages Losing immunity Gaining immunity	16 30	1 5 3 % 6 %	10 27 50	7 7 % 0%	8 2 5	7 3 5 % 8 3 %

TABLE VI

	Rate Toxin	Modified Toxin H 12	Modified Toxin H 11
Age group 5-15 years	2 weeks 6 month Pos Neg Pos Neg 4 24 12 16	Pos Neg Pos Neg	2 weeks 6 months Pos Neg Pos Neg
Percentage negative	85 7% 57 1%	6 21 10 17 77 7% 62 9%	7 18 7 18 72 0% 72 0%
16 and over Percentage negative	2 20 9 13 90 9% 59 1%	8 15 7 16 65 2% 69 5%	5 16 8 13 76 1% 61 9%

TABLE VII

Fortnightly doses Equiv 280 000 std Weekly doses Equiv 180 000 std	Pos A	fter 2 Neg 8 26	80 0%	Pos '	7	Per cent 70 0%
	10	20	72 2%	12	24	66 6%

given at weekly intervals. Comparisons are revealed in Table VII.

Of the group receiving fortnightly doses, one individual who was positive after the first two weeks gave a negative reaction after six months, but on the other hand, two negatives became positive. In the group receiving weekly doses, six positives became negative, while eight negatives became positive in six months. From which it would appear that increase of dosage and of interval between injections does not appreciably influence the production or maintenance of immunity by means of the modified toxins.

Conclusions

- 1. Evidence is presented that the raw toxin of streptococcus scarlatinae can be modified by oxygenation, and still retain its immune-producing powers.
- 2. The raw toxin of streptococcus scarlatinae produces the greater number of immunes upon initial retest, but the percentage undergoes a sharp decrease over a six-month period.

- 3. Modified toxins can be given in greater concentrations over a shorter period than raw toxin and produce a comparable percentage of immunes. The percentage decrease over a six-month period is much less than with the raw toxin, and a greater number of non-immunes upon initial retest will develop immunity over a six-month interval, when compared with susceptible persons receiving raw toxin.
- 4. Raw toxin produces some general reactions but few local ones, while modified toxins cause some severe local and general reactions.
- 5. Age does not appear to be a significant factor in the production nor retention of scarlet fever immunity in respect to which there is considerable unpredictable individual variation.

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HOW CARS "GO OUT OF CONTROL"

There is a type of automobile accident in which the explanation commonly offered is that "the car went out of control." In many cases, however, according to Dr. Yandell Henderson, Professor of Applied Physiology at Yale, writing in Science, subsequent examination demonstrates that the steering gear, motor and brakes were in good order. It is hence really the motorist who "goes out of control" and the explanation for his action lies in an instinctive reflex, which submerges the conditioned reflex built up by driving a car. The reflex concerned is the "self-righting reflex," which is excited by any sudden disturbance of equilibrium, As we read in an abstract of his article by the A.M.A. Journal, Dr. Henderson explains that it is a complex reaction in which the head, body, arms and legs are all involved.

When it occurs in the driver of a car, the impulse that dominates him is to steady himself in his seat. He grasps the wheel with his whole strength. His arms stiffen, and he is as likely to steer off the road as along it. Simultaneously, and as part of the same nervous and muscular complex, he performs another act so instinctive that in most cases he is entirely unconscious of it. His legs are forcibly extended and his feet are pressed down hard. It is the muscular act

that Sherrington, who discovered it in the dog, named the "extensor thrust."

It is thus obvious that in drivers it will result in sudden hard pressure on the accelerator pedal. Since it is impossible to change this reflex, which may occur following an initial jolt or even a mental start. some other means of preventing this type of accident must be discovered. On reviewing a considerable number of accidents, Henderson feels that at least 10 per cent are due to the initiation of this reflex. It is characteristic that the thrust occurs in both legs and hence a clue to the necessary safety measures is readily available. There are some obvious disadvantages in introducing a method by which heavy pressure on the accelerator pedal will close the throttle and slow the car rather than speed it up.

There are no similar objections, however, to the introduction of a safety factor under the left foot which on a similar extensor thrust would counteract the tendency to acceleration caused by the right foot. A pedal under the left foot would involve no great difficulties of adjustment for those already accustomed to driving. It would, however, introduce an added factor of safety, which might result in a material decrease in road

accidents.

THE PLACE OF NEUROPSYCHIATRY IN A GENERAL HOSPITAL

JOHN L ECKEL, M D, Buffalo

For the purpose of a clear understanding from the start in reference to what we believe is the place of neuropsychiatry in a general hospital, I feel that a definition of our subject is in order

In a general way neurology comprises the study of all that concerns the nervous system both in health and in disease This includes those forces relating to its development or structure, its normal function, or the many deviations produced in its function or structure as a result Thus, in such an assumption, we include not only the conditions associated with anatomic changes but also those presenting a deviation from what generally accepted as the normal physiologic activity of the nervous system, which is regarded as a neurosis further includes those conditions resulting in a disturbed state of consciousness in which there is difficulty or complete mability in adapting one's self to his environment, which we regard as a psychosis

In the light of this conception it is quite patent that neurology and psychiatry are regarded as being so interwoven that no logical division can or should be made between them, hence, our use of the term, "neuropsychuatry" rather than that of neurology or psychiatry separately

Since the World War in particular, there has been a greater tendency to study each patient examined as an individual, so as to get a clear conception of what are his troubles, rather than to pigeon-hole him as such and such a disease, as has too often occurred in the past procedure resulted in directing treatment to an entity rather than to have made it individualistic as it should have been the past, too great an emphasis was placed upon the physical signs and laboratory data of all kinds rather than including the emotional make up of the patient in helping to evaluate his complaints inclination to pass over lightly the many complaints of ward patients, particularly if they are inclined to be irritable, fault finding or annoying, may lead to many errors of diagnosis and faulty treatment

It is for this type of patient as well as presenting definitely psychotic symptoms, that the assistance of a welltrained neuropsychiatrist can be of very great help in evaluating some of these complex mechanisms. There should be perfect teamwork in any general hospital among the various services and specialties, in order to give the patient the greatest opportunity for correct diagnosis and treatment

When one considers that neuropsychiatry is dealing with the dominant system controlling all the other body systems, and hence over all the essential functions of life, it must be evident that it has a very close relationship with every other field of medicine It is of special assistance to the internist in evaluating many complex situations, particularly those in reference to the various painful states, especially those of the abdomen when they may not be accompanied by any demonstrable pathology as shown by laboratory examinations, physical signs, by the roentgenologist analysis of the emotional reactions in this type of case very frequently explains the gastric distress or multiplicity of other disturbing symptoms

Often one finds the starting point of a chain of these symptoms as the result of an ill timed remark by some physician. who, in his desire to clarify his opinion, may state too much about the presence of an organic condition This is particularly true of cardiac cases, many of them with no lesion or at most a debatable, slight organic finding who have become serious invalids due to the fear caused by the knowledge of some advanced cases, or to newspaper reports of sudden deaths from heart disease

We often find a very serious neurosis associated with those who happen to know they have an increased blood pressure or some thickened vessels, which takes the form of fear of angina, cerebral hemorrhage or of sudden death A word of warning might be sounded here to those who do bedside teaching. If we would but constantly keep in mind that all sick

people are more or less suggestible, then we shall be more cautious as to what we remark before them in addressing our students. Frequently we have seen ward cases grow rapidly worse and become deeply depressed or show great anxiety, which, upon analysis was found to have been caused by the misinterpretation or exaggeration of some rather tactless remark made by a bedside teacher. This is particularly true of diseases pertaining to the circulatory system. It is wellknown that depressions, especially, are often associated with visceral and somatic disturbances which may simulate the various organic diseases affecting those organs. Any prolonged psychic emotional conflict may be the beginning of some bodily disorder, which may be expressed in the individual by such conditions as palpitation, sweating, pallor, gastric distress or vague muscle pains.

When conflicts are deeply rooted and no adequate reaction can be obtained because of the individual's constant repression of the irritating material, one frequently observes a transference of these processes into some physical or mental syndrome, such as bizarre types of anesthesia of a limb, hemianesthesia, functional paralysis, deafness, blindness or aphonia, as physical symptoms, while great anxiety states, compulsive ideas or obsessions, may represent the mental transference.

During the past few years in particular, owing in part to the economic depression, many conditions have arisen which are simulating closely the various physical conditions, but which, on careful analysis by both internist and neuropsychiatrist, are really found to have an emotional When such cases as these, commonly known as psychoneuroses, are definitely found to have no physical basis for the complaints made, they are best treated apart from other ward patients. They should be placed in a rest home or a special division of the hospital, or in some sanitarium especially devised for their treatment. They do not, as a rule, fit in long with ward routine, being inclined to be of a disturbing nature upon the slightest provocation. The benefit of a general hospital residence to such a patient, however, is the reassurance he has had from a complete physical study.

In the field of surgery, similar con-

ditions exist which are baffling at times to both the surgeon and to the neuro-In abdominal conditions psychiatrist. especially, one must continually be on the alert for an early tabes and early spinal cord disease, as well as emotional factors in evaluating other complex cases. I have had a number of opportunities to observe cases in the wards who had complaints in reference to an ankle, a knee or a leg giving out at times while walking, which condition would be associated with pain. In a few of these there was history of some minor injury, usually not sufficient to lay the patient up and usually there was no litigation in the case. In each instance, after ruling out any fundamental physical disorder, the emotional sphere was analyzed, and each time a fear of some resultant damage was elicited which showed some transference in the way of a moderate diminution of skin sensation, either of a foot, about the knee, or of the whole limb. In many instances one had to test carefully to find this diminution, as it was very slight. When a full explanation of the relationship was made, the case invariably cleared up and no symptoms remained.

The ophthomologist meets many cases where the combined study yields very fruitful results. This is especially true of early brain tumor cases, or in other conditions where a debatable eyeground change is noted. Again, in helping to solve some of the difficulties in vision in markedly suggestible individuals without demonstrable pathology, we frequently observe a strong emotional impression in the way of a fear resulting from seeing something distressing, either pertaining to the patient himself or to an intimate friend, or following some trivial injury to or about the eye. Careful sensory tests plus careful color field examination clarifies the case, and after a full explanation the symptoms disappear.

The same may be said for the otologist. Many deeply rooted emotional states manifest themselves through disturbances of hearing of the functional type. The gynecologist and urologist also furnish a wealth of material for combined study. Of interest in the fields of gynecology and urology is the fact of the tremendous interest many people manifest in their genital apparatus. Those inclined to be

introspective and suggestible, and there are many of these, fix their minds on these organs; they are unable to prevent thinking of such ideas, and soon begin to exaggerate their feelings. In this way, symptoms of what are minor disorders that would escape the notice of individuals with other interests, become exaggerated to the patient, frequently to the exclusion some other serious concomitant pathological change in other parts of the Vast numbers of these people present all types of transference resulting from some real or repressed sex aberration that only psychopathology unravel.

So it is for all fields of medicine, and it is my belief that if the specialists in the various branches of medicine would but familiarize themselves with the opportunities and advances resulting from the study of the psychic factors in the production of many disease syndromes, it would very often affect their treatment most favorably.

All this tends to argue for the need of a clear relationship between the various specialties and neuropsychiatry; also for the better opportunity in most general hospitals for the proper study of all such complex cases, for it is only by such methods that diagnostic errors can be greatly reduced. The various specialties will thus be functioning to the advancement of medicine and the cure of the

patient.

With reference to the clear-cut psychotic cases in a general hospital, I feel that in a general way there should be some provision made for them, although I admit the disadvantages in having this type of case in all such hospitals. In a hospital where there is no provision for these cases as they develop following operations, confinement, or from some other condition-and there is no other institution in the city for the care of the patient-then several rooms in some part of the hospital should be set aside. There should be proper equipment in the way of screened windows, opportunity for locking doors, continuous baths, and a trained personnel to care for them. At this time a fair number of cities have arranged for one hospital, usually a City hospital, to care for psychotic cases; and to study and treat them in conjunction with other departments of the hospital. instead of each general hospital having such a department. In this way the expense of maintaining such a department in the other hospitals is eliminated and one hospital is able to have the proper equipment and personnel. In the event that a medical school is in association with such a hospital, the teaching advantages from every standpoint cannot be overestimated.

Such a division in a general hospital affords the opportunity for early diagnosis in incipient cases, for the patient goes without prejudice or feelings of guilt or shame to a general hospital, instead of having the feeling that he has been sent to an institution for mental diseases. This fact greatly allays his worries and assures him of further careful study from every standpoint, which is always a great satisfaction not only to the patient and his family, but to his physician as well. Through such an arrangement most of the mild psychotic cases recover and thus never have the imagined stigma of a State Hospital attached to them. severer ones are studied sufficiently long so that the family can easily be persuaded to commit them, and thus save again a lot of prejudice regarding the status of a mental hospital.

In summary it might be emphasized that the field of neuropsychiatry in a general hospital is a broad one; it involves the training of special men for the work, and how to meet the different neuropsychiatric situations as they occur in different disease

pictures.

It is the opinion of C. Macfie Campbell,1 in which I concur, that in the ordinary run of ailments in any branch of medicine. which do not involve personal matters, the patient has a reasonable opportunity for systematic and efficient study and treatment. However, in those cases where the instinctive emotional and personal factors play a role, the case is likely to receive inadequate study and treatment. The neglect of personal factors in all fields of medicine is largely due to prejudice in favor of the procedures of the laboratory. Treatment and prevention have been thought of largely in terms of the metabolic and bacteriologic laboratory, The limits of these procedures are beginning to be realized, and the needs of the

JULIN L. EUNLL

patient himself, as opposed to the needs merely of his tissues and organs and systems, are coming to be studied.

Mental diseases and severe nervous conflicts may require prolonged analysis by expert workers to fathom their problem, but the effort will frequently save serious operations or other prolonged medical treatments in hospitals.

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Reference

1. Campbell, C. Macsie: New Eng. J. Med., 208: 1094, 1933.

"TOO MUCH BIRTH/CONTROL BALLYHOO"

Voluntary health insurance for workers of restricted income and the liberalization of laws relating to birth control and abortion were advocated at a meeting of the Medical Society of the County of New York, at the New York Academy of Medicine, by Dr. Charles Everett Farr in his inaugural address as incoming president of the county society, on Jan. 27.

Dr. Farr discussed mercy killings, workmen's compensation, home relief, medical care, and hospitals, making it clear, however, that he was merely stating his personal views, which are "not in any way to be considered the official views of the

County Medical Society."

Dr. Farr expressed the view that while no physician has the right to commit any positive act that would shorten a patient's life, he does have the right to refrain from applying remedies that would result only in the needless prolongation of suffering, if the patient expressly states that he realizes his condition and that he no longer wishes to have his life artificially prolonged. In such cases, Dr. Farr said, the physician should have the right to allow nature to take its course.

"There has been altogether too much ballyhoo about birth control," Dr. Farr said. "The publicity methods employed have alienated many sincere physicians. Moreover, a very large element of our profession, through their deepest religious feelings, are strongly opposed to the movement.

"My own view is that while each physician should be his own judge in the matter, the law should not prohibit us from giving such advice as we see fit to those adults who ask for it. After all, they also must

choose their own way of living."

On abortions Dr. Farr said: "The evil of criminal abortions is widely known. Possibly its wake of maiming and death, if truly exposed, would closely rival that of the automobile. Surely such a condition demands a remedy.

"Birth control is a partial answer. The liberalizing of sentiment against performing abortions is another. My one thought is for the unwanted and unloved child, to be raised in poverty and ignorance, cannon fodder to be sacrificed by, or to, our modern tyrants. These do not advocate birth control."

On mercy killings, known medically as euthanasia, Dr. Farr said: "Euthanasia can be dismissed in a few words. We all want it for ourselves when the time comes, but who of us care to hold the cup of hemlock to the patient's lips? Prolongation of suffering needlessly is one thing, but the deliberate snuffing out of the vital spark is quite another."

A BOUQUET FOR THE PROFESSION NOTED IN DEATH RATE DECLINE

The death rate in the State last year was 10.8 per thousand population, the lowest in half a century, the Department of Health reports.

Almost three-quarters of the deaths in 1935 were due to heart-disease, cancer, pneumonia, nephritis, cerebral hemorrhages,

accidents and tuberculosis.

New minimum death rates were established for typhoid fever, diphtheria, infantile diarrhea, influenza, pneumonia, bronchitis, tuberculosis and accidents. Infant and maternal mortality have not been lower in the years of which there is a record and the death rates for appendicitis, suicide, homicide, alcoholism and automobile accidents were exceptionally low.

The birth rate, decreasing since 1914, reached its lowest point in 1935 at 13.5 per 1,000 population. Compared with 1934, the births decreased by less than 1,500. The corresponding reduction in 1933 was around

11,000.

SHE CARVES TOO

A doctor's wife, Mrs. Martha S. Larsson, of Detroit, has been awarded second prize in a competition for a design for a memorial fountain to be erected on Belle Isle, near that city. Mrs. Larsson studied art in Sweden and graduated from the Technical School of Arts in Stockholm. For the past three years she has been a pupil of Milles, internationally famous sculptor. Mrs. Larsson has exhibited sculptural work at the Michigan Artists' Show annually for the past eight years, but this contest was her first important competitive effort.

ROENTGENOGRAPHIC EXAMINATION OF THE LUNGS Relationship of Certain Technical Factors

CHARLES C McCoy, M D, Cooperstown

In considering what technical procedure to follow in the production of roentgenograms of the lungs in living patients, it would seem of prime importance to determine and evaluate the relationships which exist between those properties which seem to determine quality in the completed roentgenogram, and those factors which are or may be employed in its production. In attempting to visualize these relationships we have found the use of diagrams somewhat helpful We are venturing to present some of these diagrams to depict the viewpoint of one individual who is groping toward what he hopes is a better understanding of the problems involved in the roentgenographic examination of the lungs for any appreciation of the subject that we may have, we are indebted particularly to an article by Files¹ which appeared in 1931, and to the several admirable reports of Wilsey* 8 which have appeared since then

Quality in a roentgenogram, as an abstract entity, is difficult to analyze The properties of the completed roentgenogram which are frequently considered in judging its quality are detail, distortion, contrast, and density 9 10 Definition or sharpness may well be separated from detail, and regarded as a separate attribute of quality These properties have rather generally accepted but not clearly delimited meanings They are ordinarily defined in terms of their manifestation in the visual examination of the roentgeno giam but may be interpreted in terms of the factors which control their production and variation, or perhaps by some mathematical appraisal such as Thoraeus11 has employed in defining geometrical sharpness

Detail is a rather inclusive term, which is largely self explaintory, it is usually considered to be the most important element of quality. Definition is perhaps a more pleasing designation than sharpness for that characteristic which is probably somewhat more accurately depicted by the latter word. Distortion refers to the

deviation of the images of objects in the roentgenogram from the true shapes and sizes of the objects, distortion with respect to shape will not be considered further in this discussion, distortion with respect to size or magnified distortion might possibly be more precisely designated as magnification Wilsey apparently uses magnification to refer to the enlargement of a single object or part, and reserves distortion to refer only to variations in magnification. We will use distortion to refer to any magnification Density relates to the degree of blackening of the roentgenogram as a whole Contrast refers to the differences in density between different areas

There appear to be various relationships among definition, distortion, contrast, de-tail, and density Wilsey states that detail is the result of definition and contrast, others regard distortion as also playing an important role in detail Definition or sharpness is certainly closely related to and an essential constituent of detail, and an increase in definition tends to produce an increase in detail Contrast, likewise, seems closely related to and an essential constituent of detail, within certain limits an increase in contrast occasions an enhancement of detail, with sufficient increase in contrast, however, certain areas of the roentgenogram may attain such extremes of density that the detail in them is not apparent. If the concept of detail includes the portrayal of dimensions as accurately as possible, as I think it should. then it follows that the minimizing of magnified distortion leads to an increase of detail There seems to be a certain slight but definite symbiotic association between definition and contrast, as judged by the eye, the sharpness of the line of demarcation between two adjoining areas appears to be increased if the contrast between the two areas be enhanced, and, conversely, the contrast between two adjoining areas seems to be augmented if the sharpness of the line of demarcation between them be increased Definition and

distortion are separate properties of the roentgenogram but seem somewhat related; both may be regarded as relating to size; both are influenced by the factors of distance (object-film and focal-film); and increase in one tends to be associated with a decrease in the other, although this association does not necessarily occur. In order to recognize this apparent association it will be assumed that distortion embraces all properties of the roentgenogram that are affected by the relationship between object-film distance and focal-film distance; from this assumption it may be inferred that a decrease in distortion tends to effect an accentuation of definition. The visibility of contrast and detail depends upon density; there is usually a rather wide range of density within which both contrast and detail are readily apparent; but with either too great or too little density, their visibility is lessened.

Figure 1 represents an attempt to portray diagrammatically certain of the relationships or trends that seem, or have been assumed, to exist between these characteristics of the roentgenogram which have been considered. A plus sign adjacent to the name of a characteristic denotes an increase in that characteristic: a minus sign signifies a decrease; two plus or two minus signs indicate a marked increase and marked decrease, respectively. The lines between the names of the characteristics show the trends considered and the arrow at the end of each line indicates the direction of its trend. Thus, an increase in definition tends to produce an increase in detail (trend 1). A decrease in distortion likewise tends to enhance detail (trend 2) and also to increase definition (trend 9). An increase in contract tends to increase detail (trend 3) but a too greatly increased contrast

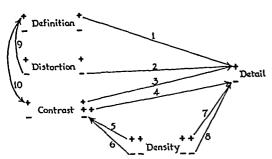


Fig. 1. Relationship assumed to exist between the properties of quality in the roentgenogram.

tends to diminish detail (trend 4). A greatly increased density tends to effect a diminution in both contrast and detail (trends 5 and 7) as does also a greatly diminished density (trends 6 and 8). The mutually augmenting relationship between increases of definition and contrast is indicated by trend 10.

We will assume, that the quality of a roentgenogram is governed by its definition, distortion, contrast, detail, and density; that the composite element of detail is the most important of these; and that, in the quest for quality, the attainment of greater detail while maintaining a density sufficient to visualize satisfactorily that detail is the most important consideration.

The principal factors to be considered in the production of roentgenograms of the lungs may, I think, be rather conveniently viewed in five groups, as follows:

1. The fundamental factors of exposure. These are voltage, milliamperage, time of exposure, and distance (focal-film or anodefilm). These are the factors commonly employed in describing roentgenographic technic and are fundamental, in that no roentgenographic exposure can be made without them. These four factors may all be varied with the limits of their variation determined by the capacity of the x-ray apparatus, which is available for use.

2. Certain accessory or mechanical factors. These include the x-ray tube, intensifying screens, cones, diaphragms, the Potter-Bucky diaphragm and filters. The x-ray tube has many characteristics, of which probably the most important is the size of its focal spot. Intensifying screens likewise have several characteristics, such as speed and grain. This is a rather flexible group in which the operator ordinarily has considerable freedom in selection.

3. Certain factors relating to the patient. In this category there is placed the movement of and within the patient, the distance of the patient from the roentgen-film (object-film distance) the scattered radiation arising in the patient, the size and musculature of the chest, the amount and nature of the intrathoracic pathology if there be any, and the cooperation of the patient during the examination. The factors relating to the patient constitute the most inflexible group with which the roentgenologist has to deal.

4. Factors associated with the film. These include such properties as the speed

and contrast of the film. They will not be considered further since their control is largely beyond the realm of the roent-

genologist.

5. Processing factors. This group embraces the factors concerned with the procedures in the dark-room, such as the composition of the solutions employed, their strength and temperature, and the time of These factors are of major development. importance in determining roentgenographic quality but will not be considered further in this discussion.

The control of the quality of the completed roentgenogram rests in the utilization and manipulation of these various factors concerned in its production. Roentgenograms of satisfactory diagnostic value may be obtained by a variety of technical procedures, and what constitutes the most satisfactory roentgenogram is a matter of opinion. But if the attempted analysis of the elements constituting quality which has been presented, possesses a moderate degree of validity; it follows that the control of definition, distortion, contrast, and density are essential to the control of quality; it follows also, that, in a general way, the aim should be to secure as much definition or sharpness as possible, to obtain the minimum amount of distortion possible, to obtain as much contrast as can be had without losing detail, and to have a density that permits the satisfactory visualization of the contrast and the detail.

We will endeavor to portray diagrammatically some of the relationships that seem to arise between these factors which have been assumed to establish quality and the factors of production, when one attempts to vary certain intensities of the factors of quality. The relationships depicted do not represent all that exist; they are presented as trends or tendencies without definite quantitative value, so that if the portrayal has any merit, it is in visualizing the problems involved, and not in solving them. The trends selected are shown by lines in which an arrow indicates the direction of the trend; a plus sign adjacent to the name of a factor indicates an increase in that factor while a minus sign indicates a decrease: the factors relating to the roentgenogram are placed at the left; the fundamental factors of exposure are at the right; those factors which have been designated mechanical or accessory are at the top; and the factors relating to the patient are placed at the bottom.

The variations thus considered are: (1) Increasing definition by decreasing the effect of motion; (2) increasing definition by decreasing the size of the focal spot of the tube; (3) decreasing distortion; (4) increasing contrast, explained in the following:

1. Increasing definition by decreasing the effect of motion. Motion of and within the patient is probably the most important single factor to be considered in the roentgenographic examination of the lungs; it is potentially the most important factor in the control of definition or sharpness. general way, one may assume that the amount of blurring or unsharpness produced in the roentgenogram by movement varies directly with the rate of the movement and with the duration of the exposure. Thus, it would seem that if the movement itself cannot be eliminated, its effect may be mitigated by shortening the time of

exposure.

Figure 2 indicates some of the relationships that may be considered when one attempts to obtain an increase in definition by means of a decrease in the effect of motion (trend 1). Shortening the time of exposure is the most important factor in effecting a decrease in the effect of motion (trend 2). Probably the chief factor to permit a decrease in the time of exposure is the use of intensifying screens (trend 3); the use of screens, however, causes a certain decrease in the definition (trend 4) and, ordinarily, the greater the speed of the screens the greater is the decrease in the definition. Thus the mechanical factor of intensifying screens exerts indirectly an augmenting and directly a decreasing effect

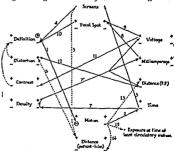


Fig. 2. Increasing definition by decreasing the effect of motion.

upon the property of definition; the former influence is probably much the greater. Also, the use of screens with casettes and a casette holder has a tendency to slightly increase the distance between the patient and film, and in so doing to increase the property of distortion (trends 5 and 6). creasing the time of exposure in order to lessen the effect of motion tends to diminish the density (trend 7); but density has to be maintained within a certain range in order to secure a satisfactory roentgenogram, and this tendency for its diminution necessitates consideration of a compensatory augmentation of the density by means of one or more of the other factors controlling it. This augmentation may be obtained through an increase in voltage, an increase in milliamperage, a decrease in the focalfilm distance or through a combination of these (trend 7). If either voltage or milliamperage, or both, are increased, the production of heat at the anode of the tube is increased, which tends to necessitate a larger focal spot (trends 8 and 9). As the size of the focal spot used is increased, the definition decreases (trend 10). The last is a relationship of major significance; the quest for ultra-rapid exposures may be of doubtful merit when it entails greatly increasing the size of the focal spot employed. Also, an increase of voltage to compensate for diminution in density tends to produce a loss of contrast (trend 11), which may occasion a small loss in definition. The relationships between voltage and milliamperage vary with the x-ray machine employed; possibly the most significant is a tendency for an increase in milliamperage to occasion a drop in voltage. If a decrease in the focal-film distance be employed in combating diminished density, distortion is increased (trend 12) and through it definition may be lessened.

The effect of movement is influenced by the relationship of focal-film and object-film distances in the same way that the size of

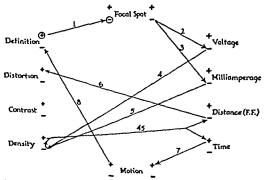


Fig. 3. Increasing definition by decreasing the size of the focal point.

a non-moving object is influenced; thus there may be a magnified distortion of motion. The effect of motion may be lessened by decreasing the object-film distance (trend 14), a procedure that is generally impossible; it may be lessened also by increasing the focal-film distance (trend 13). It is perhaps permissible to state that a decrease in distortion tends to lessen the effect of motion in the roentgenogram.

The patient-motion factor is not simple. It embraces general bodily movements, the movements concerned in respiration and the movements dependent upon the circulatory system. The first and second of these types of movement are ordinarily under voluntary control for such a period of time as is consumed in the roentgenographic examination; but the shorter the time of exposure the less likelihood is there that either of these gross types of movement occur. The movement produced by the heart and blood vessels is not under the control of the patient, and it is this type of movement which has commanded the chief attention in the consideration of technical procedures for the roentgenographic examination of the chest. The precise nature and quantitative values of this last type of motion are not accurately known; presumably, the impact of the beating heart against the lungs and the pulsations in the blood vessels are the chief determinants of its nature and extent. Hence, it would seem that motion of this type would vary in degree in relation to the cycle of the heart beat and would vary in extent in different portions of the lung in accordance with propinguity to the heart and large vessels. It would seem also that the direction and range of the movement may vary in different areas of the lungs and that they might modify the effect of the rate in influencing definition. Wilsey6 states that "Lung tissue speeds vary from a practically stationary condition at the periphery to twenty or more millimeters per second near the apex of the heart." Thus, a time of exposure which would eliminate the effect of motion for one region of the lung need not do so for other regions. McPhedran and Weyl12 in particular, have emphasized the value of synchronizing the time of exposure with definite phases of the cardiac cycle; if the exposure can be made at that phase when the effect of the cardiovascular movement is least (trend 15) it would seem that the effect of the movement could be significantly diminished. Several devices for effecting this synchronization have been perfected, 18, 14 but at present none is generally available.

The probable marked variability of cardiovascular motion in the lungs merits, I believe, considerable emphasis, it is a variability that is almost entirely beyond the roentgenologist's control. The degree of motion must vary between different individuals, must vary in the same individuals at different times, must vary in different parts of the lung at the same time, and must vary in the same portion of the lung at different times.

It is probable that all effect of motion in decreasing definition can be eliminated by employing a sufficiently brief time of exposure To do so, however, may well entual a loss of definition from other factors, as

already considered

2 Increasing definition by decreasing the size of the focal shot used. The size of the focal spot of the x-ray tube exerts a constant control over definition in the roentgenogram This control is based on the geometrical conditions concerned in shadow projection and this variety or aspect of definition has been called either geometrical sharpness or geometrical unsharpness, the latter designa tion is possibly somewhat more descriptive of the condition If a focal spot of infinitesimally small area could be employed. geometrical unsharpness would not occur, but under the existing conditions of producing x rays, the amount of heat generated at the anode necessitates a focal spot of appreciable dimensions, a focal spot of such size occasions a certain amount of geometrical unsharpness or less definition

Geometrical unsharpness may be lessened but it cannot be eliminated. It is diminished as the size of the focal spot is diminished provided the factors of distance are not changed. With a focal spot of constant size it is diminished as the object film distance is decreased and as the focal-film distance

is increased

Figure 3 attempts to present some of the trends that seem to merit attention when one endeavors to increase definition by decreasing the size of the focal spot used (trend 1) As the focal spot is decreased in size, its expacity to dissipate heat is diminished and as a result its capacity to handle voltage and milliamperage is reduced (trends 2 and A decrease in either voltage or milli amperage or both effects a diminution in roentgenographic density (trends 4 and 5), to muntain a satisfactory degree of density a decrease of the focal film distance or an increase in the exposure time or both may be considered (trend 45) If the focal-film distance be decreased, there is an increase in distortion (trend 6), which we have assumed is associated with a decrease in definition If the time of exposure is increased there is a tendency for the factor of movement in the patient to be increased (trend 7) and thereby a decrease in definition to be effected (trend 8). This last tendency seems to be of particular importance, it represents somewhat the reverse of the tendency developed in the analysis ament the control of motion.

If these analyses with respect to definition are valid it would appear that an enhancement of definition by decreasing the effect of motion might be attained only by decreasing the definition dependent upon the focal spot, and that an increase in definition obtained by decreasing the size of the focal spot might be secured only by a decrease in the definition that is dependent upon the movement in the patient. If this implication be true, the important practical consideration is what combination of unsharpness due to motion and unsharpness dependent upon the focal spot leads to the least total unsharpness or best definition Wilsey6 and Bouwers15 have considered this problem at some length Wilsey emphasizes that, whatever size of focal spot is used it should be operated at or near its rated capacity This would seem to be extremely important There is no merit in obtaining a large amount of geometrical unsharpness from a focal spot and not utilizing the full energy capacity of that focal spot for diminishing the exposure time and thereby lessening the effect of motion Wilsey2 states, "to secure the best definition in chest roentgenography, the focal spot must be operating at or near its maximum load capacity This principle governs practically the whole consideration of sharpness in chest roentgenography"

In this consideration the focal spot of the tube has been regarded as a fixed factor except for its size. There are, of course, other variables in connection with it such as its shape and angulation. Any device that would permit the employment of greater energy without involving an increase in the size of the effective focal spot would seem to offer considerable promise toward the attainment of greater roentgenographic definition. The rotting anode suggested by Bouwers¹³ offers intriguing possibilities.

in this connection

3 Decreasing distortion We have regarded magnified distortion as that component of roentgenographic quality which is varied by varying the quantitative relationship between the object film distance and the focal-film distance. The effect of movement, the geometrical unsharpness, and the magnification are all influenced in the same way by these two factors of distance. Distortion cannot be influenced in any other manner than by the manipulation of these factors of distance.

Distortion may be lessened by decreasing the patient-film distance and by increasing the focal-film distance. Since the patient's chest is ordinarily placed as closely as possible to the roentgen-film, the patient-film distance is not subject to any significant degree of diminution. The focal-film distance may, however, be increased to an extent limited only by the capacity of the x-ray apparatus available; this offers the only practical means of lessening the effect of distortion. Distortion cannot be entirely eliminated no matter how great the focal-film distance is made.

Figure 4 indicates certain trends that seem significant when one attempts to decrease distortion by increasing the focal-film distance (trend 1). The intensity of the radiation reaching the roentgen-film decreases rather rapidly as the focal-film distance is increased, so that the roentgenographic density is correspondingly diminished (trend 2). To compensate for this diminution in density, one may consider an increase in voltage, an increase in milliamperage, an increase in the time of exposure or some combination of these (trend 2'). An increase in either milliamperage or voltage tends to necessitate the employment of a larger focal spot (trends 3 and 4) which in turn tends to a decrease in definition (trend 5). An increase in the time of exposure may necessitate a similar trend, but in particular, it tends to aggravate the effect of movement (trend 7) and entail a decrease in definition on that account (trend 8). An increase in voltage tends also to effect a diminution in contrast (trend 6). It would seem that a decrease in distortion might only be attained through a loss in definition, and possibly through a loss in contrast as well.

The importance of distortion as a factor

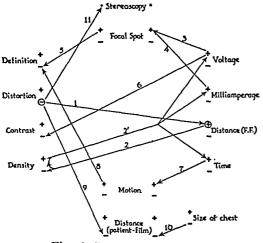


Fig. 4. Decreasing distortion.

in roentgenographic quality diminishes as the size of the chest diminishes; that is, it plays a lesser role in the small chest than in the large one (trends 9 and 10). Although the patient-film distance is not subject to any significant measure of control, the approximation of the chest to the roentgen-film and the size of the chest as determined by the phase of respiration at which the exposure is made, do undoubtedly effect it to some extent. Stereoscopy climinates certain of the disadvantages of distortion (trend 11).

4. Increasing contrast. Contrast in the roentgenogram is governed largely by the type of radiation that reaches and effects the roentgen-film. The type of radiation that reaches the film is determined by the composition of the x-rays engendered at the anode, and by the subtractions from and additions to these rays between the anode and the film. The nature of the x-rays produced at the anode is largely a function of the voltage. As a general rule, contrast is increased by a decrease in voltage, provided the voltage is not reduced below that which is necessary to effect a proper penetration of the patient. The most important other type of radiation that affects the film is the scattered radiation which arises from the patient. Scattered radiation increases the density of the roentgenogram but obscures its contrast; the elimination of scattered radiation increases con-

Figure 5 aims to present some of the trends that seem of consequence when one endeavors to secure an increase in contrast. The chief method which is generally available for increasing contrast is the lowering of the voltage (trend 1). A decrease in voltage tends, however, to produce a decrease in density (trend 2). In seck-

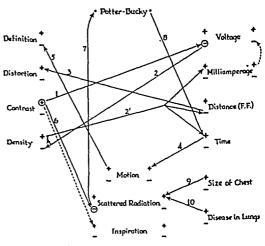


Fig. 5. Increasing contrast.

ing compensation for this decrease in density one may consider an increase in milliamperage, a decrease in the focal-film distance, an increase in the time of exposure or a combination of these (trend 2). A decrease in the focal-film distance tends to effect an increase in distortion (trend 3). An increase in the time of exposure tends to lessen the definition through increasing the factor of motion in the patient (trends 4 and 5). Thus it would seem that the attempt to increase contrast by lowering voltage may result in a loss of definition and an increase in distortion.

Contrast would be increased markedly if scattered radiation could be eliminated or considerably reduced (trend 6). Wilsey found that with the adult chest on the average about fifty-five per cent of the radiation reaching the film was scattered radiation. The chief device available for climinating scattered radiation is the Potter-Bucky diaphragm (trend 7). The employment of this diaphragm, however, tends to necessitate an increase in the time of exposure (trend 8) and hence tends to lead to a decrease in definition by aggravating the effect of motion (trends 4 and 5). Further, the conventional type of Potter-Bucky diaphragm requires for its suitable performance a focal-film distance that is distinctly less than ordinarily used in making roentgenograms of the chest. The amount of scattered radiation increases in general as the thickness of the chest increases (trend 9), and particularly as the density of the structures within the chest increases. The latter is increased mostly by disease (trend 10), such as greatly thickened pleura, pleural effusion, and massive consolidation within the lungs. In cases with very dense lesions, the use of the Potter-Bucky diaphragm may prove of distinct advantage. Wilsey8 has reported obtaining a moderate increase of contrast by employing a Potter-Bucky diaphragm of a special type and by increasing the voltage to avoid an increase in either milliamperage or time.

The amount of secondary radiation may also be lessened by the use of a cone or diaphragm near the x-ray tube. Zintheo16 has reported obtaining definite improvement in roentgenographic quality by the employment of a suitably placed diaphragm.

Contrast is probably influenced to some degree by the depth of inspiration which the patient has at the time of the exposure.

In conclusion, it would seem a reasonable inference that the pursuit of refinement with respect to one element of quality in the roentgenogram of the lungs. leads to a loss of refinement in other determinants of quality. Thus the decision as to what technical procedures to follow in the roentgenographic examination of the lungs resolves itself into the determination of which choices, among those made available by the equipment at hand, offers the greatest good with the least evil.

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NOW THEY KNOW HOW IT IS

16

A humorous writer in a New York paper tells us of an amusing incident that hap-pened when Dr. John B. Byrne, chief alienist of Kings County Hospital, and William Penner, head of Greenpoint Hospital, together made a tour of inspection of the Kings insane wards one hot summer's day.

When they finally decided to leave, Dr. Byrne discovered that he had left his passkey in another suit and the doors were made

of steel.

Hammering on the doors was of no

avail, because attendants were inured to such tactics on the part of the patients. The heat was fast becoming intolerable, and the two inspectors were fast becoming indig-

They strode to a window and gesticulated furiously to a passerby, trying to convey their plight to him, but he responded with a shrug and a sympathetic shake of his head, as if to say, "Poor souls."

Oh, yes; they were finally released, but only after a very uncomfortable hour.

THE NEW STATE TUBERCULOSIS HOSPITALS

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The establishment of three new state tuberculosis hospitals was recommended by the recent State Health Commission only after extensive study by its Tuberculosis Committee of the clinical, epidemiological, and social problems concerned with the disease. It was concluded that in spite of the depression an investment by the State of over four million dollars in three new tuberculosis hospitals would be more than compensated by preventing the further spread of the disease and by providing adequate medical care and segregation for those who already show evidence of clinical tuberculosis. accordance with the Commission's recommendation the legislature of 1931 authorized the establishment of the three new state tuberculosis hospitals to be administered under the jurisdiction of the State Commissioner of Health.

By virtue of many years of actual clinic work in the various counties to be served by these hospitals, the State Department of Health convinced the Committee that a service in collaboration with the practicphysicians throughout the rural counties in this State would produce the most profitable results in the continued fight against tuberculosis. Probably no better example of *esprit de corps* in public health has been witnessed than that prevailing in the relationship between this Department and the physicians in some twenty-seven rural counties. With full realization of the part which the practicing physicians should assume, the foundation of this program has been built upon the hope, as a result of experience, that the joint endeavor of these physicians and the State may in a mutually profitable manner provide a scientific service for the care and treatment of tuberculosis, a complete case finding and follow-up service of all patients and their contacts, and as a by-product of these activities, increasing knowledge of the epidemiological and clinical factors influencing this disease which is still the leading cause of death among young adults. Economically,

tuberculosis still has a profound effect upon society.

To be more specific, the prospectus for these new state tuberculosis hospitals includes professional, educational, and clinical demonstrations and discussions with local physicians. Resident educational facilities for medical students and internes, in cooperation with medical schools, for student nurses, and courses for graduate nurses in hospital and field tuberculosis nursing will be available in each of the hospitals. Clinical, laboratory, epidemiological, and sociological research will be carried on routinely.

Each of the hospitals is being constructed in a geographic and population center of a group of rural counties which will be known as a district. The districts are comparable in size and have an average population of approximately 310,000. Likewise, the morbidity problem is comparable in each of the three districts. The average annual number of resident deaths for the past five years being 129 in the Oneonta district, 123 in the Mount Morris, and 120 in the Ithaca district.

The district farthest east is comprised of the following eight counties: Madison, Chenango, Otsego, Schoharie, Delaware, Greene, Sullivan, and Putnam. The hospital is located approximately one mile from the business center of the city of Oneonta. Contracts were awarded on October 6, 1932 and patients should be received early this fall.

The central district (geographically) is comprised of the following nine counties: Wayne, Seneca, Yates, Cayuga, Schuyler, Chemung, Tompkins, Tioga, and Cortland. The hospital is located approximately three miles from the city of Ithaca on the Trumansburg Highway overlooking Lake Cayuga. Contracts were awarded January 12, 1933. Owing to the bankruptcy of several contractors unusual delays have been experienced with the result that patients will not be received until early in 1936. This hospital has been named the Hermann M. Biggs

Read at the Annual Meeting of the Medical Society of the State of New York, Albany, May 14, 1935 Memorial Hospital in memory of the late Commissioner of Health, a man who was not only a pioneer in tuberculosis control but also for years a distinguished leader in the field of public health.

The third district is comprised of the following seven counties: Orleans, Genesee, Wyoming, Allegany, Steuben, Ontario, and Livingston. The hospital is located in the village of Mount Morris. Contracts were awarded on August 31, 1933 and patients should be received about September 1, 1935.

The cost of constructing and equipping each of these hospitals will be approximately \$1,500,000. Each will have 200 adult beds and a separate fifty bed

children's building.

The hospitals at Oneonta and Ithaca are of the same general plan, with separate wings, or pavilions, for infirmary and semiambulant or ambulant patients, connected by the administrative and clinic building. The Oneonta hospital is a combination of Colonial and Georgian architecture while the Hermann M. Biggs Memorial Hospital is of Old English Cottage style.

The Mount Morris hospital is of the congregate or multistoried type and of

Georgian architecture.

Each hospital will have a complete clinical and pathological laboratory; surgical suite; eye, ear, nose, and throat and dental rooms; a complete outpatient clinical department; adequate x-ray facilities for both outpatient and inpatient study; and rooms for occupational therapy and adult education.

Staff. Each of the hospitals will have a medical superintendent, an assistant superintendent, roentgenologist, and four other physicians. Facilities for housing medical students and internes are also available. Dr. Ralph Horton has been appointed Superintendent of the hospital at Oneonta and Dr. N. Stanley Lincoln, Superintendent of the

hospital at Mount Morris.

Each of the hospitals will have a consulting staff, appointed by the State Commissioner of Health, of six physicians, or other persons scientifically trained in the various specialties. Such consultants will serve a term of office coterminous with that of the State Commissioner of Health and shall, in conjunction with the staff of the hospital, meet at least once each month to consider and discuss appropriate scientific or clinical subjects.

As additional assurance that our patients may receive high grade medical study and treatment, as well as to enhance the professional educational opportunities of these hospitals, it is proposed to engage a special medical consultant, a physician who has had years of experience in the study of diseases of the chest, who shall spend at least one day a month at each hospital receiving and examining all cases which may require special medical or surgical study. In addition, a special consultant in thoracic surgery is being considered.

The major part of the maintenance cost will be met by charging a per diem fee back to the counties, this fee to be estimated on the basis of the average per diem cost per patient in six representative county tuber-culosis sanatoria. In other words, it will cost the counties no more for the care of their patients in one of the state tuberculosis hospitals than in a county tuberculosis institution. For the first year this fee will be approximately \$2.50 per diem. The cost of the clinic program and research studies

will be met by the State.

Admission of patients. Any resident of a county in one of these districts desiring admission may apply to a physician. If further clinical study or treatment for tuberculosis is indicated the physician may apply to the superintendent of the hospital for the patient's admission. Blank forms for such application will be provided gratis by the superintendent to all physicians in the district. If, upon examination, the superintendent is satisfied that such person is a suitable case for study or treatment he shall, if a bed be available, admit him or her to the hospital. A patient may also apply direct to the superintendent of the hospital for admission; and, if found to be a suitable case for study or treatment, may be admitted.

Patients from outside of the district who are able to pay may be admitted. Moreover, the superintendent of any public tuberculosis hospital within the State may apply to one of these State institutions for the transfer of a patient needing special medical or surgical care which his hospital is not equipped to provide. This would relate particularly to surgical cases which may be in need of major operative care. Patients from counties in the districts, however, shall have

preference in being admitted.

Maintenance of patients. The superintendent will be required to make inquiry as to the patient's ability to pay, either in whole or in part, for his care and treatment. If, upon inquiry, it is found that the patient's financial circumstances, or those of his relatives, do not warrant his paying for such care, a bill will be sent monthly to the clerk

of the board of supervisors of the county of which he is a resident. Patients referred for special treatment from any public tuberculosis hospitals become proper charges against the county from which they come at the same rate of pay as patients from the counties within the districts.

Outpatient service. In general, the clinic service, which will be one of the prominent features of the hospital program, will be conducted in a manner comparable to that which has prevailed in the State Department of Health chest clinics for the past sixteen years. The mortality and morbidity problem in each district indicates that about 4,000 routine clinic examinations should be made each year. Case finding or follow-up service for tuberculosis, to be successful, must be brought figuratively to the doorsteps of the physicians and the people. In other words, service commensurate with the need will be made available to each community within the counties of the districts. Naturally, most of these examinations will be concerned with cases and their immediate contacts, but in view of the paucity of knowledge regarding the pathogenesis and spread of tuberculosis, research studies in selected groups—industrial, nursing, school, and others—will be conducted. The chronicity and recrudescent characteristics of tuberculosis, occupation, migration, and other social factors indicate the need for case finding embracing other selected groups. Sir William Osler once said that it is more important to know the type of person having a disease than it is to know the type of disease which a person has. May we not paraphrase that statement and say that it may be more important to know the kind of family in which tuberculosis is a problem than it is to know what kind of patient comes from that family.

The literature reveals, and experience has shown, that the focus of infection of many cases cannot be discovered; nevertheless, it is evident from studies conducted by our department and others that tuberculosis essentially is a family disease. It is expected, therefore, that the problem in these districts will be approached from a family standpoint. Epidemiological investigations and studies will assume a conspicuous part of our service. Although we may not be able to determine the source of infection of each case, it is expected that the contacts of every case will be screened in order that every secondary case may be discovered at the earliest possible moment. The epidemiology of tuberculosis has many points in common with other communicable diseases. In contrast to the acute communicable diseases, the pathogenesis of tuberculosis manifestly makes its epidemiology more complex.

It has long been recognized that it is the early case of tuberculosis which under appropriate conditions has the greatest opportunity for recovery or possible cure. It has been demonstrated in our clinics, as well as by other groups, that intensive study of contacts, plus thorough examination and study of cases referred by practicing physicians, leads to the discovery of an encouraging percentage of cases in the minimal stage of their disease. Although the major part of this case finding program will be carried on in the itinerant clinic program, we hope figuratively to throw away the key of our outpatient service so that the practicing physicians within the district may have constant service available. Obviously, with the complete clinical facilities provided in the hospitals, a more scientific approach to, and more intimate study of selected cases will be possible than heretofore.

Clinical laboratory. One of the most prominent pathologists in the field of tuberculosis will be in charge of the clinical laboratory service. Although his headquarters will be the central hospital at Ithaca, there will be a qualified assistant laboratory director at each of the other hospitals. In addition to routine clinical and epidemiological studies of patients, it is intended that biological, bacteriological, and other research studies will have a prominent place in the laboratory service.

Surgery. Every case will be considered primarily a medical case. The triad of rest, food, and fresh air will make up the basis of our treatment. Auxiliary measures, some

of which are not ordinarily looked upon as surgical procedures, such as artificial pneumothorax, will be used as indicated.

In some localities the pendulum of surgery has swung too far in the treatment of tuberculosis. Experience in this country, as well as in other lands, indicates that it has an important place in the therapeutics of tuberculosis. In this relatively new field of thoracic surgery, much remains learned regarding the indications, contraindications, choice of procedure, and end results. Relatively few surgeons have had the opportunity of becoming proficient in this specialized field. In planning a surgical service, however, the practice has been the same as that followed in all studies relating to the details of the program, namely to consult freely with those who are especially qualified in the various branches of medicine. After intimate consideration of the potentialities of this service it has been recommended that an experienced thoracic surgeon be engaged to assume charge of the major surgery in all of the hospitals. As in the case of the laboratory, the surgeon's

herdquarters will be at Ithrea Living facilities will be available for him at the other institutions so that he may remain at any one of the hospitals to carry on preliminary studies, or after care which are so important in the surgical treatment of diseases of the lungs. A member of the striff of each of the hospitals will be assigned to assist the chief surgeon in carrying out the surgical treatments.

Rehabilitation is a conspicuous part of the treatment afforded by the hospitals. To be most effective, however, it must be sustained by treatment and guidance as a part of the follow up of discharged cases. The case whose sputum is positive or potentially positive, for tubercle bacilli, obviously requires closer supervision and guidance than the sputum negative case In addition, follow up treatment and guidance as indicated from the public health standpoint, and close supervision of all cases of pulmonary tuberculosis following their return to society, are necessary The character of this follow up will be determined not only by the extent and type of pulmonary pathology present but also by conditions in the home, industry, as well as by other environmental factors

Although large sums of money have been spent in treatment, many cases later break down Obviously many circumstraces influence relapse. In spite of the chiracteristics of the disease, there seems to be some evidence that more complete patient education and closer follow-up may result in appreciably fewer breakdowns. The practicing physicians we hope, will assume a conspicuous place in the follow-up studies of discharged patients. The home, industrial and social environment and the activities of these patients must be modified within the bounds of their limited physical capacities.

To summarize, each physician referring a case either for diagnosis or treatment will receive a report of clinical findings and other portinent data in accordance with the procedure in our chest clinic service. Periodic summaries of the clinical status and progress of patients under treatment in the hospitals will be muled

to their family physicians. At the time of a patient's discharge from the hospital a more complete summary, plus detailed recommendations regarding his ability to exercise or work, and the type of medical supervision which may be indicated will be forwarded. In addition, the local health officer will receive appropriate reports relative to the epidemiological problems of the case. Although physicians will be requested to supervise the routine follow up, some cases will require rather more detailed follow-up by our outpatient.

Service is to be the keynote of these state tuberculosis hospitals, service to the physicians, health officers, the families, and the communities. We extend a cordial welcome to every physician, and especially those practicing within the districts, to visit them. During such visits we hope to have the benefit of their advice and counsel. In turn such visits should not be without profit to the physicians.

The triad of tuberculosis—hospital health officer, and the practicing physician—presents a formidable combine in the continued fight against this enemy of the public health—the tubercle bacillus

The program in the district may be likened to a living cell of which the hospital-health officer unit is the nucleus and the practicing physicians the cytoplasin The life of every cell depends upon the vitality of its component parts. We have all witnessed this cell of administrative practice grow and develop for more than fifteen years Although its future life and health seem assured, we are not unmindful of the pitfalls which he ahead The anticipated cooperation between the various groups should make it possible to avoid them to the end that the social and economic stress incident to this communicable disease may be ameliorated materially

Discussion

DR H ST JOHN WILLIAMS Poughkeepsie—Dr Plunkett's paper has explained to us a comprehensive and intensely interesting plan for the study, treatment, and follow up of tuberculosis in New York State The extensiveness and completeness of the equipment and facilities make me, as superintendent of an older hospital, even a little envious But it shows a full familiarity with the problem before us and of all

the ramifications which are so frequently lost sight of in the more immediate need and desire to treat the patient

As an investment in health both from the standpoint of the patient and the community, segregation and treatment in the hospital is but one phase of the problem. The state's program includes *keeping* the patient well and protecting his family and other contacts through education, follow-up and

stomach trouble, autointoxication and high blood pressure for which she had been treated by local physicians for sixteen years. She complained in addition of attacks of dyspnea and palpitation of six months' duration.

Physical examination and laboratory tests including the gastrointestinal series were negative. Blood pressure was 190/100. This patient failed to improve under medical treatment; she lost fifteen pounds, and had frequent attacks which kept her in bed for days or weeks at a time, with nausea, vomiting, and severe precordial pain. After eighteen months treatment she developed an anginal syndrome in addition, and began to carry a cane regularly because of fear of falling.

She was seen first by a psychiatrist two years after her initial visit to the medical department at which time she reported that a general physician had told her her blood pressure was over 200. Blood pressure recorded at this time was 190/100, and pulse 130.

The patient stated that she was perfectly healthy until her marriage which was against her parents' wishes eighteen years ago. Six months following her marriage she had a nervous breakdown and wanted to leave her husband. A general physician advised a pregnancy, and she became pregnant shortly afterwards. She vomited steadily from the first month till the ninth, lost weight, and nearly died when the baby was born. At this time she said she was first told that she had high blood pressure.

She became tense and suffered much from constipation. She said that certain things seemed "to throw her into a spasm," she "didn't know why." She then started her sixteen years' journey from physician to physician. She found herself equally unable to leave her husband or to live with him and he became increasingly inadequate.

Considering this patient's story in terms of predisposing factors to illness many elements are to be evaluated, but there is one point to which for present purposes attention should be called. On the physiological side we have a possible hereditary factor in cardiac disease on the part of the patient's mother. The "pseudohereditary" possibility involving imitation and identification, however, deserves consideration. About six months before the patient's initial visit to the medical clinic, her father from whom she had been estranged since her marriage died of cancer of the stomach. (Incidentally, her father's first stomach operation had coincided with the patient's marriagein which she had both disobeyed and refused to support him-following which her own gastrointestinal complaints began.) After his death she went to care for her mother who was suffering from angina pectoris and high blood pressure from which she died six months before the patient's first visit to the psychiatric clinic. The patient's attacks of dyspnea and palpitation had begun when she went to nurse her mother, and the anginal syndrome, together with nightmares and sleeplessness, after her mother's death concerning which she felt unaccountably guilty.

In the course of treatment the patient revealed further physiological preparation for illness. She complained that her mother was always nervous and sickly and her father could never earn enough money. In her girlhood she had felt herself overpowered, crushed by the personality of an older sister who took the place of the weak and sickly mother, forcing her to give up school and go to work to help support the sick parents. Although the patient tried to make up for this by going to night school she felt it had been a life-long handicap. She was intelligent with high ambitions. Until the illness following her marriage she made more money than any other member of her family and was their main support.

At the age of sixteen she fell in love with a man of whom her parents disapproved. After six years in which she was torn between this man and her parents she married him. She said of this period: "If only there had been someone to advise me. I was nearly crazy. I used to cry myself to sleep every night and wake up with nightmares feeling sure I was going to marry the wrong man, and yet I somehow couldn't help it. I had to get out of the awful home atmosphere although I felt I was losing something irre-The patient was completely unprepared for the marriage relationship, and her early adjustment was further complicated by the fact that she felt guilty for having disobeyed and deserted her parents. Her husband, who was below her socially, made it difficult for her to entertain her friends, made fun of her aspirations and intellectual interests, and after a few difficult weeks began to go with other women. She complained that he was no better than her father in that he could not earn enough money to support her.

This is a patient for whom one would have favored intensive psychotherapy. Because of the limitations imposed by clinic conditions she was seen only ten times during a period of two months. The central problem handled was that of her rage and repressed aggressive tendencies, these being brought into con-

scious relationship with her symptoms; furthermore she gained insight into the meaning of her symptoms. She has remained symptom free for more than two years. [Three years—at this time of printing.] Subsequent to her period of treatment she was seen on follow-up visits at intervals of two and four months, and then every six months. On each of these occasions the blood pressure registered 130-135/80-85.

The patient stopped attacking and blaming her husband, accepting the fact that she was intellectually superior to him, and began to help him with his work. As a result, although all this happened during the period of our economic depression, he went ahead in business, and the circumstances of the family improved so that she was able to send her daughter to college. The patient says had she had the opportunity of psychiatric help in her "teens" she probably would have married a different man. But she is going to look

at things as they are.

In this case history we have a gastrointestinal picture and an anginal syn-drome of incapacitating severity together with cardiac arrhythmia, tachycardia, and a hypertension of long standing. There was an increasingly acute symptomatology which did not yield to somatic treatment but disappeared rapidly when attention was directed to the underlying emotional disturbance. The fact that this patient has remained well is the more interesting in that her husband himself has not changed very much. Eleven months ago they again suffered serious financial reverses, and he entered on a new love affair to which the patient reacted on a common sense basis rather than by symptom formation. Of course, at present we can say only that the sym-tomatology has been interrupted. But it is important to note that so far as could be ascertained there had been no symptom-free periods during the eighteen years of her illness preceding her psychiatric treatment. It is possible that this patient, like many others, might have been saved eighteen years of invalidism had the meaning of the disease picture been understood earlier in its psychic as well as in its somatic components. In addition, there is the likelihood that had the hypertension been allowed to persist,

secondary organic changes would have taken place in the course of time.

Case II. A married woman, age twenty-eight, of an old New York family, came to the medical clinic in the spring of 1931 complaining of palpitation, shortness of breath, and fainting spells, which were so incapitating that she could scarcely walk two blocks, and was unable to do her housework. The diagnosis was cardiac hypertrophy, mitral stenosis and insufficiency, aortic insufficiency with probable stenosis and chronic myocarditis.

In the patient's personal history the points that stood out were timidity and extreme devotion to her father, she having left school voluntarily in order to work in his store. When the patient was sixteen years old, an uncle died of heart trouble, and a brother died one month later of "heart failure," following an appendectomy. Fifteen months later her father died in her arms of angina pectoris. The next week she became engaged to a man ten years her senior who had been a life-long friend. She was married two years later, and her married life was happy until 1930 when her husband began to stay out late at night and his attitude toward her seemed to change. At this time also she heard of her brother's unfaithfulness to her sister-in-law. This came as a great shock to the patient and increased her worry about her own husband. At the same time a break occurred between her life-long girl friend and this girl's husband.

In 1931 and 1932 the patient began to suffer from dyspnea and palpitation, following which she would shake for hours, as had happened in her first such attack when her father died. On one occasion, sitting at home alone and waiting for her husband who had promised to return at two A.M., an attack of palpitation occurred and she felt as though the walls of the room were closing in on her. She felt as though she were being crushed. She dressed and ran to her mother's house which was a few blocks away and fainted. There her husband found her when he came home at five o'clock in the morning. During the next two months the patient lost sixteen pounds (her weight having been constant at 130 lbs. until then), she was very much depressed, and had many attacks of dyspnea, and palpitation. She was terrified of something but had no idea of what it was. At this point she came for treatment.

Now thinking in terms of this patient's preparation for illness we have the following facts. On the physiological side, there is a possible hereditary and constitutional predisposition in the direction of disease of the cardiovascular system. Furthermore, the

patient had growing pains following her tonsillectomy which may have been the only symptoms of an actual rheumatic fever, and the physiological basis for the rather extensive cardiac involvement present when she first came for treatment. In view of the patient's close association with her father in his attacks, a "pseudohereditary" factor is to be considered also.

As was revealed during the course of the treatment, this patient had been prepared psychologically also for some type of illness. There were both psychic and physiological reasons for the centering of her attention on her heart or to use Connor's phrase: the centering of the patient's fluid anxieties on her heart.

In discussing her symptoms, the patient revealed the fact that the attacks of palpitation and dyspnea and the sense of being smothered occurred only when she was waiting for her husband to come home, or when she saw a pregnant woman, never with physical exertion unless in combination with one of these two factors. (She had several such attacks when she saw pregnant women in the clinic elevator.) In associating on the subject, the patient told of her when menstruation began. thought she was bleeding to death and dared tell no one about it, but the boy friend whom she later married. Her tonsillectomy however, occurred immediately thereafter, and she was again afraid she would bleed to death (a hemorrhage occurred). Furthermore, she fought violently against going under ether, and associates her present dyspnea accompanied by a feeling of the walls closing in upon her, with this experience.

In discussing the episode of the tonsillectomy, the patient experienced an overwhelming sense of terror accompanied by attacks of dyspnea and palpitation, her lips becoming blue. The patient's resentment against her mother and the fear of loss of her mother's affection were discussed. In this connection she recalled her first cardiac attacks associated with her father's death, and the fact that she had immediately replaced her father by her one life-long boy friend who had been "both father and mother" to her, and that now she was about to lose him. She felt he couldn't really leave her when she was so sick. After going over such material as that just indicated the patient became symptom free and remained so for two years without medication and with no definite restriction of diet or activity.

Late in 1933 she came in saying that she had decided that she would like to have a child and wanted to know whether it would be safe for her. She saia: "It's funny, I want one now when we have less money

than we had before, and then I thought we couldn't have one because of lack of money." Before there was time to go into this question in detail she became pregnant accidentally in January 1934. She began to dream of her father and to contrast him in her mind with her husband who still neglected her. At the end of the second month of pregnancy, the father of the patient's best friend died. The patient went to the cemetery, and became very nervous when the body was lowered into the grave. All through the next day she felt nauseated and dyspneic. She had the old sense of walls closing in. All of a sudden she hated being pregnant. Then shortly following an automobile ride an abortion took place, which she said afterwards really relieved her very much, although she feared the return of the same old shaking spells accompanied by dyspnea and palpitation rather paroxysmal in character.

The patient returned and the situation was discussed against the background of the earlier material. She was then examined in the cardiac and gynecological clinics where she was told that she could go ahead with a pregnancy if she desired to take the risk, and if she were willing to spend the last two or three months in bed as might be necessary because of her cardiac condition. When she became pregnant the fear of seeing pregnant women returned and there were some mild attacks of dyspnea, none of these symptoms being of the previous intensity. She was seen once a week for six weeks and has remained symptom free ever since. [Two years—at this time of printing.]

The patient was active (doing all her own work), and completely free from dyspnea and palpitation throughout her pregnancy, and the spontaneous term delivery of a normal boy was without complications. This is the more significant in that her husband's attitude toward her did not change. She herself, however, had become much less dependent on him, and incidentally no longer runs to her mother at the slightest provocation. In other words, this case like the last one, indicates that it is possible to change the patient's attitude toward a situation even where the situation itself cannot be changed. Furthermore, the bringing about of such a change in the patient has distinct advantage over the attitude which says, "well, anyone would be worried, or would be nervous, living in such a situation. We will see that she gets enough sedative to keep her quiet." It is important to realize that the degree to which "perfectly normal" worries react disastrously, or produce symptoms, in the physical sphere, can be definitely decreased with careful handling of the underlying

emotional problems. This is particularly important of course, when an actual organic

lesion is present

Case III \ mutuel Germin lewish wonin, age forty five, was admitted to the wird with a listory of dyspinea, precordial pain and bloody, frothy sputtum mimed atcly before admission I mie does not permit the giving of this patient's history in much detail. There was a possible hereditary and pseudohereditary factor in that the father died at the age of sixty eight of asthma and the mother at the age of thirtynine of heart trouble and gall bladder disease.

With bed rest and digitalis, the patient improved rapidly with a decrease in pulse deficit by the third day. She was discharged three weeks later, the diagnosis being inactive rheumatic heart disease, cardiac msufficiency, mitral stenosis and insufficiency, acrtic insufficiency, chronic auricular fibrillation, and chronic cholecystus. Two weeks liter in spite of continued digitalization she was readmitted, having become dispined and orthopnete, and again brought up pink sputum. She was fibrillating, heart rate was 120, the blood pressure 150/80

The first relevant fact brought out was that her attacks of pulmonary edema were always precipitated by sexual intercourse It seemed almost certain that the attacks were not precipitated by the physical exertion connected with sexual intercouse as (1) the patient could stand a moderate de gree of physical exertion without decompensating and (2) considerable cardiac discomfort would occur without any physical excition when the patient merely sat and thought about intercourse, or became sexually aroused. She had extreme difficulty in discussing these matters and came to the next interview fibrillating with marked tachycardra and dyspuea, confessing for the first time that she had suffered from insommer for fifteen or sixteen years, and usually got up in the middle of the night to do things around the house As the interview proceeded the patient became more cyanotic, the dyspner and tachycardia increasing so that she was scarcely able to speak

She then told the following story When she was about six years old, her father left for America, leaving the family behind in Germany During this time her mother began to cirry on sexual relutions with other men. The patient both knew about it and slept in her mother's room at times witnessing sexual intercourse. It made a 'horrible impression' on her, and she dared tell nobody about it. She was the only one of the children who knew about it and felt that this secret was a heray load. She was terribly afraid of her

mother and even now felt that it was "horrible" to talk about it She said the fear of seeing the physician before the interview, with the accompanying cardiac symptoms, was like this fear of her mother

Her attacks accompanied by bearing down prins she said usually crine at the time of year that her first baby died (she had two children living and well) She always used to go to the cemetery on a certain date but did not go this time, because she always visited her mother's grave at the same time and now felt too guilty to do so Although the patient had previously tried to avoid intercourse at these times, she now tried to overcome her aversion for it. The result was unexpected She started to cry, became terribly angry, striking her husband, and asking him to leave her alone. The patient couldn't understand herself, saying there was absolutely no reason for her to get

In other words, to the patient's great surprise an affect of anger was released, which we may suspect was diverted previously entirely into somitic channels leading to symptom formation. The patient has had no more attracks of pulmonary edemi (she has been followed for more than a year) [Two years—At this time of printing I feels much better generally, is capible of considerable exercise without decompensating (walking 40.50 blocks on a stretch) and has completely recovered from her insomin and almost from her dishke of intercourse.

These case histories taken as typical of groups studied, suggest the importance of adding to the usual diagnostic classification of the cardiovascular diseases some word as to the psychic constellation involved, including an estimate of the psychic as well as of the physiological and anatomical basis of the symptomatology In other words, there is a tendency among internists in the presence of actual cardiovascular damage to assume that the patient's symptoms such as pain, dyspnea, and palpitation, are sufficiently explained on this basis As a matter of fact, the symptomatology may be even more definitely dependent on an emotional factor. and more or less completely eliminated with handling of the emotional problem, even though the organic damage of course persists

It is further noteworthy that in these patients attacks ranging in severity from headaches and dizziness to actual heart failure were precipitated by emotional stimuli. More important than this, attacks were occasioned during psychotherapeutic interviews when the related material was brought up, and the attacks were eliminated in the course of psychotherapy. The fact should be stressed that attacks were occasioned when the related material was brought up and only then, not just by shock or excitement; and were eliminated only when this specific material had been handled psychotherapeutically, not just on the basis of talking out or reassurance.

Someone may comment at this point that in these patients the illness seemed to serve a useful purpose. In the first case the patient's invalidism got her a good deal of attention and was a weapon against her husband. In the second case the patient tried to get her husband's sympathy so that he would not leave her alone so much. It should be pointed out, however, that patients do not get sick merely for such purposes. They get sick because the anxiety (perhaps brought to the surface by these situations) is part of a deep-lying neurotic anxiety or conflict. Few measures can be more injurious to the patient than pointing out to him his secondary illness gain, or attempting to deprive him of it, without any attempt to relieve the primary anxiety or conflict. The attitude "you can't fool me anymore, I'm onto your game" is useful at best with conscious malingerers, but not with these patients. If on the other hand, the primary neurotic problem is relieved as the patient becomes clear as to the emotional significance of his symptoms, the secondary illness gain is no longer important and the patient relinquishes it voluntarily and spontaneously, as happened in all three cases reported.

The fact may be reiterated here that patients in whom the emotional factor is important are not always obvious neurotics. They are often patients who impress themselves and the average physician as perfectly normal human beings. Their symptomatology is not always such as to be suspected because of its manifoldness or its bizarre character. Of course the presence of a full-fledged symptom neurosis in patients with cardiac disease very often definitely limits their response to the medical therapy instituted, but these patients again are more readily recognized. Furthermore, they usually re-

quire much more intensive psychotherapy than the group from among whom the three case histories just presented were taken.

In the patients not so obviously neurotic there are two pictures to which I should like to call attention by way of summary. First, it may be said in general that there seems to be a psychic constellation related to spasm of vessels and often of other musculature and body systems simultaneously, no matter what the organic diagnosis is. Although there is not time to go into the material in detail, this was illustrated in the first case history given where the patient herself spoke of her tendency to spasm. Incidentally, with the conclusion of her treatment there was a marked decrease in her general muscle tension (the effect of which in her face was to make her look several years younger) and a disappearance of her constipation as well as of her hypertension. Second, there seems to be also a psychic constellation predisposing to exaggeration of the syndrome, dyspnea and palpitation, in cardiacs no matter what the physical situation, as illustrated especially in the second case. Physicians are finding it valuable in cardiac patients to analyze the symptom of dyspnea rather carefully instead of taking it at face value because the patient is a cardiac. Whether or not the physician has the impression that the dyspnea and palpitation are out of proportion to the extent of the cardiac damage this symptom is often relieved by psychotherapy.

Evidence has been adduced in the literature to the effect that emotional factors may play a rôle in the development of chronic invalidism or hasten the fatal termination of disease of the cardiovascular system. Whether or not we are justified in saying that psychotherapeutic elimination of such reactions as dyspnea and palpitation exerts a favorable influence on the course of the disease itselt, however, is a question that needs further investigation. Concerning the cases presented we may be justified in assuming definite benefit from the interruption of the hypertension, as well as from the elimination of the sleeplessness and the attacks of dyspnea and pulmonary edema in relation to intercourse, which apparently stood in direct relation to the frequency of the patient's periods of decompensation

In any case, with the relief of such symptoms the patient's incapacitation from his cardiac disease is definitely decreased as well as his fear. We all know that the fear of death which is in the minds of most patients who have been told that they are cardiacs may be a serious complicating factor in their general reaction to their disease and its treatment

Finally, observations in this field are such as to indicate that after an "organic" disease has made its appearance the symptomatology is the more abundant and the more devastating depending on the amount of damined up anxiety present. This fundamental anxiety is an important factor in the duration of any illness (including the tendency to relapse). The handling of this element is one of the major problems of convalescence, certainly of equal importance with restric-

tion of exercise and daily régime Failur to handle it may result in an unnecessar chronic invalidism of the patient

Our success in the treatment of cardivascular disease stands in direct relative to our skill in the diagnosis and treament of the psychic as well as of the somatic component in the disease pictur Furthermore, attention to the psychic component helps and is sometimes essetial in the estimation of the progress the disease process organically considered. Whether the psychic or the somatic profession be considered primary, the reproblem is to treat the patient, second the disease process, and only third it symptom.

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RUDYARD KIPLING ON DOCTORS

The death of Rudyard Kipling recalls to some of the medical journals a fine passage in an address he delivered in 1908 at the Middlesex Hospital on "A Doctor's Work" Said Kipling

Every sane human being is agreed that this long drawn fight for time that we call life is one of the most important things in the world It follows therefore, that you who control and oversee this fight and who will reinforce it, must be amongst the most important people in the world Certainly the world will treat you on that basis It has long ago decided that you have no working hours which anybody is bound to respect, and nothing except your extreme bodily iliness will excuse you in its eyes from refusing to help a man who thinks he may need your help at any hour of the day or night Nobody will care whether you are in your bed, or in your bath or at the theatre If any one of the children of imen has a pain or a hirt in him you will be summoned, and, as you know, what little trithty you may have accumulated in your leasure will be dragged out of you again

In all time of flood, fire famine plague, pestilence battle, murder and sudden death it will be required of you that you report for duty at once and go on duty it once, and that you stay on duty until your strength fails you or your consenue releves you, whichever may be the longer period. This is your position—these are some of your obligations—and I do not think that they will grow any lighter. Have you heard of any legislation to limit your output? Have you heard of any bill for an eight hour day for doctors? Do you know of any change in

public opinion which will allow you not attend to a patient when you know that if man never means to pay you? Have you hear any outery against those people who can real afford surgical appliances, and yet eadge rou the hospitals for free advice, a cork leg, or glass eye? I mu afraid you have not It seems be required of you that you must save other It is nowhere laid down that you need say yourselies. That is to say, you belong to the privileged classes. * * * * *

Realizing these things, I do not think I nestretch your patience by talking to you abothe high adeals and lofty ethics of a profession which exacts from its followers the large responsibility and the highest death rate—fit practitioners—of any profession in the worl

PNEUMONIA CONTROL

Six men, representing six importar organizations engaged in promoting it people's health left a meeting in Center Street, New York, the other day, after having made plans for the control organization in New York State Passers is would not have given them a second look-they were quite ordinary looking men Their discussion ruised hope of saving 3,00 lives per year. As they stood a moment of the corner, a siren screamed, and the gacompany's emergency wagon ruished pasto resuscitate an asphyrated victim. On life—much excitement, 3000 lives, in fuss—Burcau of Public Relations—Mee Soc of the State of New York.

FACIAL PARALYSIS

In Acute and Chronic Purulent Otitis Media

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Peripheral facial paralysis, first described by Charles Bell in 1824, is of not infrequent occurrence in the course of both acute and chronic purulent otitis media. The question, however, whether and when a facial paralysis originating in such a setting calls for a mastoidectomy seems to be still unsettled. This paper attempts to elucidate this question, with particular reference to the following case:

L. H., male, 40 years of age, fell ill with an acute suppurative otitis media in the left ear, after grip with high fever and a spontaneous rupture of the eardrum. The next morning the patient noticed watering in his left eye, and in course of the day the motility of the left angle of the mouth became very much impaired. The pain in the ear had ceased. Because of the facial paralysis the family physician sent the patient to an otologist, who told him that an immediate mastoidectomy was necessary. The same day the patient consulted a second otologist, who also advised an immediate mastoidectomy. The next day, April 3, the patient came to my office. He showed a complete motor facial paralysis on the left side, with disturbance of the salivary secretion, epiphora, and ageusia of the anterior two-thirds of the left half of the tongue; in the left external ear canal, watery pus, exuding under pulsation from a pinheadsized perforation before the hammer-handle; severe reddening and bulging of the posterior part of the tympanic membrane; and tenderness of the left mastoid portion above the tip.

The right eardrum showed no pathology. Whispering voice, right 6 m, left ½ m. No spontaneous nystagmus, no Romberg, no spontaneous past pointing. Caloric reaction within normal range. Temperature 99.6° F., pulse 74. Immediate large myringotomy in form of an arc-like incision throughout the whole posterior part of the eardrum.

Assuming that in this patient we had to deal with a facial paralysis originating in the tympanic cavity, he was treated with drastic diaphoretics, quinine, aspirin phenecetin, caffeine, infrared-light and heat applications. During the next two days no rise in temperature was noted, although there was profuse secretion from the opening of the myringotomy. After two more days there was paling of the left eardrum and diminution of the secretion, but no change in the facial paralysis.

On the seventh day—April 10—a slight improvement in the superior facial branch could be discerned. Four days later the left eardrum closed. Treatment with galvanic current resulted in rapid improvement of the superior branch, and the eye could be nearly closed and wrinkling of the forehead was possible. After two more weeks of treatment only a slight paresis of the oral branch remained, at which time the patient wished to discontinue treatment.

A quite similar case was published by Young¹ in the following words:

A facial paralysis originating in the first days of an acute otitis media cleared up after a fortnight under the treatment with a galvanic current. The point of origin of the neuritis cannot, of course, be determined with certainty. but it is to be borne in mind that the outer wall of the canal containing the facial nerve as it crosses the inner wall of the ear cavity is often almost membranous in thinness and sometimes actually has a hiatus in its bony continuity. This neuritis is analogous to that caused by infectious spreading to the optic nerve from a diseased sphenoidal sinus of a posterior ethmoid cell, as has been suggested by Gallagher2 and others.

The uneventful recovery without operative interference is to be noted in lieu of the fact that some authors regard facial paralysis in acute otitis media as a certain indication for operation.

The facial nerve enters the temporal bone, together with the auditory nerve, through the internal auditory meatus. It separates from the auditory nerve on the bottom of this canal and runs through the Fallopian canal between the transition of the basal to the second turn of the cochlea on one side and the ampulla of the superior circular canal on the other side above the vestibulum to the hiatus of the facial canal. Here it joins the great petrosal superficial nerve and a part of the small petrosal superficial nerve, which enter the temporal bone from the middle cranial fossa and together with them, it torms the genicular ganglion. It then

bends sharply backwards, outwards, and downwards, (superior knee) and runs alongside the medial wall of the tympanic cavity beneath the ampulla of the horizontal semicircular canal and above the oval window into the threshold of the antrum, where it bends again arc-like downwards (inferior knee), runs straight ahead vertically downwards and leaves the temporal bone through the stylomastoid foramen.

Lesions attacking the facial nerve in the tract described may show the following

characters:

1. Peripherally, from the branching off of the chorda tympani: motor paralysis of the whole facial musculature of the affected side (forehead, eye, corner of the mouth).

2. Within the Fallopian canal between chorda tympani and the branching off of the stapedian nerve: complete muscular facial paralysis, ageusia of the anterior two-thirds of the tongue, disturbance of the

salivary secretion.

3. Within the Fallopian canal between the branching off of the stapedian nerve and the genicular ganglion: paralysis of the entire facial muscular system, ageusia of the anterior two-thirds of the tongue, disturbance the salivary secretion (disturbances of the sense of taste-chorda tympani-are more frequent in rheumatic polyneuritis than in the purely otogenous facial paralysis). If there is an affection of the facial nerve without a simultaneous inflammation of the middle ear, hyperacusis arises; instead of hyperacusis we had better speak of dysacusis, because in such a case we deal with a pathologic hypersensitivity to highpitched sound impressions, although we find the acuity of hearing for low-pitched sounds slightly diminished.

4. Between genicular ganglion and internal auditory meatus: paralysis of the whole facial muscular system, no ageusia, disturbance of the salivary secretion, impairment of hearing in the inner car because of the involvement of the auditory nerve. Only if the latter is lacking: hyperacusis. Disturbance of the affective and reflex lacrimal secretion with increase, or in the majority of cases, decrease in quantity.³

5. In lesions outside of the stylo-mastoid foramen, as e.g. through packs of lymphnodes of the neck or through cellulitis (Bezold's mastoiditis), paralysis of isolated branches of the pes anscrinus may originate.

Facial Paralysis in Acute Suppurative Otitis Media

The majority of cases arise in the form

of paralysis of all three branches. The superior branch, however, is often less severely stricken and also heals more rapidly, while the oral branch is the first to be stricken and its paresis lasts the longest.

Presumably the facial nerve is composed of two bundles of fibers, of which the external supplies the inferior part of the face, while the medial bundle goes into the superior muscular groups. The external fibers, which are stricken more often, form a sort of sheath for the internal bundle and thus a measure of protection. They are first attacked by lesions coming from the outside and heal

last.4

Facial paralyses have a propensity for seizing the nerve in its horizontal course on the medial wall of the tympanic cavity, where dehiscences always can be found. Instead of the bony wall of the canal, one finds almost always coarse fibrous tissue. These dehiscences are situated particularly on the inferior internal periphery of the horizontal facial canal. Earlier investigations have shown the author5 that instead of the coarse fibrous tissue we frequently find relatively very thin membranes, which make it easy to understand that even in cases of a slight middle-ear catarrh facial paralysis has been observed. Therefore it is easy to understand that in radical operations under local anesthesia, in which we inject the anesthetic into the tympanic cavity, a transitory facial paralysis lasting some hours may originate. We never see such a facial paralysis in simple mastoidectomies under local anesthesia, because we then never inject the anesthetic into the tympanic cavity. There is always a small gap for the arteria stapedia, a branch of the arteria stylo-mastoidea in the Fallopian canal in the region of the oval window and, besides, there are some other vascular interstices. The infection of the facial nerve may originate in the form of a perincuritis, or neuritis. It is not necessary, however, that the infectious material pass directly via the gaps into the nerve, in the manner of a contact infection. This is demonstrated by cases of facial paralysis in acute non-suppurative otitis media. It is more probable that we have to deal with vasculo-nutritive circulatory disturbances of the vessels in the facial canal, as an edema or collateral hyperemia or a toxic paresis of the vasomotor nerves. Hence the relatively easy and often spontaneous healing which speaks against a far-reaching suppurative disturbance. It will therefore happen that the facial paralysis disappears long before the healing of the suppurative necrotising process in the bone of the middle ear, a fact which also speaks in favor of that opinion. Again, in mastoiditis and suppuration of the retrofacial cells, suppurative neuritis does not always set in, but through lesions of the vasomotor nerves a state of edema or swelling develops. It is, therefore, very probable that many of the so-called rheumatic lesions are the only manifest symptoms of a very slight inflammation of the middle-ear. I would, therefore, suggest that in each case of facial paralysis, also in rheumatic ones, an exact otoscopic examination and functional test be made, because in the rheumatic facial paralyses too, there often occurs the combination of a lesion of the facial and of the auditory nerve. Shambaugh also believes "it is apparently as often the extremely mild acute catarrhal processes as it is the more severe suppurative disease that produces facial paralysis." Moreover, according Shambaugh, "it is the acute processes that affect the nerve."

Facial paralysis is never the result of chronic hyperplastic adhesive middle ear-catarrhs, nor is it often the result of the chronic suppurative otitis media, even when the hyperplastic changes in the mucosa and underlying bone are more conspicuous.⁶ If we see a facial paralysis originating in the very first days of an acute middle ear inflammation, the presumption is in all probability that we have to deal with an inflammation of the facial nerve at the medial wall of the tympanic cavity. We meet with this fact especially in children.

Immediate extensive myringotomy, diaphoretic treatment, together with application of hot air, diathermy, or short waves may make such facial paralysis disappear very soon. Only if in the course of ten to fourteen days no improvement of the facial paralysis takes place, or if the otitis or mastoiditis even changes for the worse, facial paralysis may be an indication for mastoidectomy. In such stubborn cases the facial nerve is mostly not attacked in its horizontal part, but at another favorite place for inflammation, namely at the inferior facial knee underneath the threshold of the antrum where, through a frequently occurring so-called Pogany's cell, there may be a communication to the facial canal.

From recent investigations by Ziegelman⁷ we know "that pneumatic cells may invade the bony canal to a place where they were separated by the contents of the canal by a tissue paper thickness of bones." Ziegelman found these cells in most of his cases at the same place where Pogany had found his cell.

Canuyt⁵ has published a very interesting case pertaining to this category:

A twenty-two year old male, eight days after myringotomy facial paralysis originated. Renewed myringotomy did not bring any improvement; wherefore after three days mastoidectomy. An ostitis was found on the Fallopian canal on the threshold of the aditus ad antrum, which represented the seat of the lesion of the facial nerve. The facial paralysis healed during the healing of the mastoid wound.

Great diagnostic significance was formerly attributed to facial paralysis in connection with tuberculosis of the middle ear. Since we know, however, that facial paralysis occurs not uncommonly in the genuine otitis media acuta, the origination of a facial paralysis in acute otitis media can by no means be decisive for diagnosing tuberculosis.

If facial paralysis occurs in a scarlatinous otitis media it is always a very severe symptom, and in such a case we should be ready to perform an immediate mastoidectomy in order to avoid destroying the facial canal through the necrotising process.

Facial Paralysis in Chronic Otitis Media

We find this relatively, frequently. We have to discriminate between facial paralysis in a chronic otitis media with and without cholesteatoma. In the simple chronic purulent otitis media we meet with similar conditions in the nerve as in the acute otitis media, and our procedure will therefore be alike in either case.

When facial paralysis occurs in a

chronic purulent otitis media with cholesteatoma, it is prognostically very unfavorable, because in a cholesteatoma, erosion or wearing away of the facial canal may take place, whereby the suppurative process may attack the facial nerve directly and suppurative infiltration of the nerve may set in. Cholesteatomatous masses and granulations may strike the canal in the attic in cases in which the eardrum is partly preserved. In such a case, cushions of granulations cover the area where the lesion of the nerve takes place, in the vicinity of the oval window. More often, however, in a cholesteatoma, the facial nerve is stricken in its inferior knee and the transition into its vertical course. In chronic otitis media too, the entire facial nerve is paralyzed, but preeminently and first of all the inferior branch, only later and less intensely the other branches.

In such partial paralysis the prognosis is more favorable. It is typical in these cases that the onset of facial paralysis is not quite sudden and apoplectiform, but is to some extent preceded by prodromal manifestations. During the world war I had occasion to see such a case:

A soldier, aged forty-two, with a chronic of this media on the left side developed convulsions with pain in the area of the inferior branch of the facial nerve. The patient was first treated in the field hospital of his regiment, until after a few days complete facial paralysis with high fever set in.

Radical operation on this patient disclosed a cholesteatoma of about the size of a hen's egg with a perisinous and epidural abscess on the dura of the cerebellum. After removal of the cholesteatoma the facial nerve lay open in its whole vertical course from the threshold of the antrum down to the tip of the mastoid portion. The healing process was uneventful, and by treatment with the galvanic current the facial function was completely restored.

However, in chronic suppuration of the middle ear facial paralysis may occur without having anything to do with the suppuration, and, therefore, may be harmless.

The following case is reported by Ruttin.9

A man with chronic cholesteatomatous suppuration of many years' duration without any findings in the labyrinth and with-

out any other complications was treated by Ruttin for many months without success and, therefore, a radical operation was proposed to the patient. For various reasons the operation did not take place. Following an acute coryza, an acute exacerbation with a profuse pulsating suppuration from the antrum developed and at the same time a homolateral facial paralysis set in. Headache or any other symptoms of a complication were not present. The caloric and rotatory tests were quite normal. Again a radical operation was suggested, but the patient refused it for the time being. Within four weeks the facial paralysis disappeared completely, suppuration ceased, and the tympanic cavity became dry. In this case the facial paralysis might have been a rheumatic one or caused by the acute exacerbation without a simultaneous labyrinthitis.

In this connection Ruttin mentions the case of a physician, who himself suffered from a unilateral chronic otitis media and was suddenly stricken with a homolateral facial paralysis. Ruttin suggested a radical operation. Patient, however, refused it, remarking that this was certainly only a rheumatic facial paralysis; not only he himself, but also his brother and father had had rheumatic facial paralysis on the same side several times. As a matter of fact the facial paralysis in this case soon cleared up.

Benési¹⁶ also reports a case of a woman with chronic otitis media, who was stricken with a homolateral facial paralysis without any exacerbation. Without operation the facial paralysis disappeared after faradization and galvanization.

Such cases, of course, admonish us to be cautious and teach us that also in cases of chronic purulent otitis media with cholesteatoma and facial paralysis, we have to weigh carefully the pros and cons of an operation. In such cases we always have to bear in mind the possibility that we may be dealing with a luetic facial paralysis, and we have to act accordingly.

Facial paralysis in affections of the inner ear interest us within the frame of this paper in so far as they may occur in suppuration of the inner ear, especially in the complicated diffuse purulent labyrinthitis. They need not necessarily vary from the facial paralysis in a middle-ear suppuration. In these cases, too, symptoms of irritation may be observed for a short time in the very beginning. An

exact diagnosis is, therefore, very important. If, for instance, in a chronic cholesteatomatous suppuration of the middle ear, an acute labyrinthitis develops and a facial paralysis sets in, an exact functional test of the facial nerve may reveal a localization of the suppuration. If in such a case we find a complete motor facial paralysis with disturbance of the lacrimation, but without a disturbance of the sense of taste, it would indicate that the lesion of the facial nerve has taken place in the inner ear canal.

From this fact we should be able to conclude that the acute infection has approached this area and that a meningitis is threatening. In such a case, even in the most acute stage of labyrinthitis, an immediate radical operation of the labyrinth with laying open of the inner auditory meatus may be life-saving, and we should not have to wait for the first symptoms of meningitis in the spinal fluid.

In the literature we find a number of cases in which the facial canal was the path on which the suppuration travelled to the endocranium (epidural and brain abscess).11-13

In a case reported by Brieger¹⁴ a fatal meningitis developed via the facial canal three weeks after a mastoidectomy. This case shows that facial paralysis may some time be a warning signal of endocranial complication.

Summary

1. The appearance of a facial paralysis in the course of a suppuration of the middle ear is always to be regarded as a serious symptom.

- 2. If the onset of a facial paralysis in an acute otitis media occurs in the very first days of the inflammation of the middle ear, such a facial paralysis, contrary to the teachings laid down in so many textbooks and handbooks, as a rule does not indicate a mastoidectomy. Only in the event that such a facial paralysis does not clear up in the course of two weeks or so after an extensive myringotomy, or the more if other symptoms arise, it may well become an indication for a mastoidectomy.
- 3. If a facial paralysis develops in the course of an acute purulent otitis media in the third or fourth week, it may have been caused by a lingering mastoiditis and may be an indication for a mastoidectomy.
- 4. Facial paralysis arising in a chronic purulent otitis media without cholesteatoma may clear up without any operation. If other reasons for a radical operation exist, facial paralysis may be a weighty contributory indication for an operation.

5. Facial paralysis in a chronic purulent otitis media with cholesteatoma is an indication for an immediate radical operation.

6. Facial paralysis originating in an existing purulent otitis media with acute labyrinthitis may be an indication for a labyrinthectomy, in order to prevent a threatening meningitis, provided we are able to locate the focus of the facial paralysis in the internal auditory meatus.

667 MADISON AVENUE

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NOTICE OF EXAMINATION

A competitive examination will be held in May for the position of Director of the New York State Psychiatric Institute and Hospital, Department of Mental Hygiene; salary \$6,000 per year, with \$3,000 added in lieu of maintenance, less deduction for pen-

sion purposes. Further details and application forms may be obtained from the Examinations Division, State Dept. of Civil Service, Albany, N. Y. All applications must be returned or postmarked not later than May 15.

NEW YORK STATE JOURNAL

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The Editors endeavor to pullish only that which is authentic but disclaim any responsibility for views expressed by contributors Address all communications concerning the Journal to the Littorial Office, 33 W 42nd Street, New York City (Telephone Cilickering 4 5570)

EDITORIALS

Danger Ahead: Go Slow!

The Supreme Court's nullification of a large part of the national Administration's legislative program speaks more eloquently than words against haste and emotionalism in the formulation of laws NRA cost the country millions in bureaucratic expenditure only to be swept into the discard. The AAA has been prononnced dead but the enormous sum of half a billion dollars must still be paid out to discharge obligations contracted under it Even if the Social Security Act withstands the test of constitutionality, there is no certainty that it will achieve its aims Some observers predict that it will on the contrary increase unemployment by spurring greater mechanization of industry to avoid payroll taxes

As far as Albany is concerned, the experience of Washington in the past year should act as a sharp check on ill considered legislative innovation Unbiased critics have pointed out that the state unemployment laws are carelessly framed and madequately financed, with little likelihood of surviving a severe depression Now it is proposed to add to the statute books a measure that is not merely of doubtful efficacy but outspokenly vicious The Mandelbaum Compulsory Health Insurance Act defies sound theory and experience in its mexact actuarial basis, its combination of cash and medical benefits and the excessive power it places in the hands of politically designated ad-

In Europe obligatory prepayment for sickness gave a tremendous impetus to malingering and hypochondria, with the result that costs have far exceeded early estimates That Americans are not immune to similar weaknesses is clearly shown by the findings of the Research Staff of the New York State Commission on State Aid to Municipal Subdivisions All over the state a dole seeking population is developing as a result of easily obtainable relief Enactment of the Mandelhaum Health Insurance Act, with its cash benefits and medical aid to wage earners who are well able to provide for themselves, would complete the pauperization of a large section of the public

The tendency to resort to liasty, superficially attractive legislation for the eradication of complex economic flaws is costly to the tax-payer and destructive of orderly social progress Bills like the Mandelbaum Health Insurance Act are statutory murages, depleting the weak (among both individuals and governments) of their scant reserves. The physicians of this state are unalterably opposed to this measure, which sacrifices the medical profession and the quality of medical practice to a cumbersome political bureaucracy serving an invalid concept of medical care

A Fundamental Threat

For the first time in a number of years two acts have been introduced in the Legislature which would legalize the practice of chiropractic in this state. Physicians who remember the strength of the chiropractors' lobby at Albany less than a decade ago will understand how important it is to the public health and to scientific medicine that the Hill bills be promptly and thoroughly quashed.

Assemblyman Hill employs two different devices to destroy the educational defenses of healing. In one bill he simply exempts chiropractic from the existing statutory definition of medical practice. Needless to say, the minute chiropractors were granted this exemption, every other quack cult in the state would clamor for similar privilege—and with equal justice. The Medical Practice Act rests on its definition of medical practice. Any successful attempt to tamper with that definition would bring the whole law down in ruins.

Mr. Hill's other bill is the old chiropractic classic in slightly modified form. New aspirants to this lucrative field would have to spend two years in academic preparation of a sort. For established practitioners the prescribed term of study is reduced—to practically nothing in the case of old-timers, who, parenthetically, are most in need of formal instruction, many of them having been recruited from occupations having no discoverable relationship to the basic medical sciences.

Enactment of either of the Hill measures would undo the great benefits that the public health of this state has enjoyed under the current Medical Practice Act. To some politicians, who profit by the voter's right to commit follies, there is force in the chiropractic argument that the sick be permitted to select their own systems of healing. The medical profession does not gainsay this right. It merely insists that every one who undertakes to diagnose or treat disease by any means should be subjected to the same exhaus-

tive preparation as the physician. There is no obstacle (except knowledge and conscience) to the practice of chiropractic after completion of the regular medical course.

The sole point at issue is whether the minimum standards set by the state for those who purpose to treat the sick shall be respected or destroyed. On this point no thinking person can afford to remain silent. Physicians should enlist all the intelligent laymen of their acquaintance in defense of the existing statutory safeguards against ignorance and incompetence in healing.

Simplified Surgery for Prostatic Hypertrophy

According to the latest available statistics, approximately one-third of all men over sixty years of age suffer from the effects of prostatic hypertrophy. Despite the remarkable advances in the knowledge of prostatic surgery, prostatectomy still remains a formidable procedure, largely because of the poor physical condition of the majority of those afflicted. Consequently urologists have sought less drastic means of affording relief from the distressing symptoms resulting from enlargement of the prostate gland.

In 1884, Lannois suggested castration. The clinical results which followed this operation were very satisfactory but the psychological reaction of the patient coupled with the marked cachexia were more troublesome and alarming than the symptoms of prostatic hypertrophy. Experimental work has shown that the female hormone (folliculin), which is also present in the male, and the hormone Prolan B of the anterior pituitary lobe, are capable of causing a marked increase in the size of the prostate gland when injected into animals. The male sex hormone, on the other hand, regulates the normal development of the gland.

On this basis, Van Cappellan¹ attempted the treatment of prostatic

^{1.} N. Y. STATE J. OF MED. 35:223, 1935.

hypertrophy by injections of the male hormone This procedure, however, must of necessity, be a long drawn out process Niehans offers a simple and more con vincing method of therapy. He reasons that if, in old age, the internal secretion of the testes can be augmented, particularly that emanating from the germinal epithelium, the physiological balance between the male and female hormones and Prolan B will be re established. Utilizing the Stemach II operation, wherein the efferent testicular ducts are ligated, he has succeeded in giving relief to over four hundred sufferers from prostatic hypertrophy Besides the rejuvenating effect of this operation, the circulation is improved and the arterial tension becomes normal Nocturnal frequency and painful straining gradually recede and the bladder can be emptied without effort. In most cases, the residual urine disappears. These results, according to Nichans, last for vears

The beneficial effects of this operation are attributed by Niehans to the forcing of the germinal epithelium hormone through the pores of the tunica albuginea into the general circulation. This viewpoint is, of course, open to question, but the fact remains, nevertheless, that the operation is a simple one. The remarkable results reported warrant an extended trial of the Steinach II for the relief of prostatic hypertrophy, and a thorough check of the claims made for it.

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Nasal Accessory Sinusitis

Infections of the nasal accessory sinuses still confront the profession with a problem which is far from solution. It is true that the greatest proportion of cases of acute suppurative sinusitis respond favorably to therapy and in most instances a cure can be obtained. Chronic infections of the sinuses are much more difficult to deal with. The surgery of chronic sinustits, though highly perfected technically, has not yielded the gratifying results which other branches of bone surgery.

have been affording Consequently, there seems to be a trend toward so called conservatism in the treatment of chronic masal accessory sinusitis

This change in attitude has resulted in a reversion to the use of mechanical means of cleansing the nasal passages plus the use of various drugs to reduce inflammation and to promote healing. In connection with the latter, it is of interest to note the work of Fenton and Larselle1 who have studied the effects of drugs applied to the mucosa of the sinuses in cats An inflammatory reaction was induced by the moculation of streptococcus hemolyticus and preparations such as histamine, azochloramid, sodium alum and ephedrine compounds were then brought into contact with the inflamed mucosa

From their observations, practically every preparation acted as an irritant except where its strength was isotonic, despite its efficacy as an antiseptic in vitro. Sodium alum and tannic acid in weak solution reduced the severity of the infection. The newer compounds which resemble ephedrine in their action tended to stimulate the reparative processes.

It will be seen, therefore, that the total abandonment of surgery in favor of medicaments in the treatment of chronic suppurative sinusitis is not to be recommended at the present time in view of the above findings. The symptoms of chronic sinusitis are not accounted for entirely by the local lesion and the systemic effects, plus their mode of production, are understood but little. A middle course must be steered until more is known of the relationship of smus pathology to the organism as a whole

CURRENT COMMENT

FROM THE Saint Louis County Medical Society Bulletin under dite of February 21, 1936, we read that "According to the experience of the American life insurance companies for the year of 1935, it is reported that the death rate from heart disease has declined almost one per cent from the

² Nichans, P Lancet vol 1, No 6, 307, Feb 8,

¹ Fenton R A and Larselle, O Arch Oto-

rate experienced in 1934. This is the first decrease that has been experienced in five years. And what is more noteworthy still is the first decrease in the death rate from cancer in ten years.

"Who caused this decrease? How was it brought about? The answer to the first is, the physicians. The answer to the second is, because they have a many century-old proven practice of medicine, that is constantly being changed to suit the times and to include the new facts that are developed by the doctors. State medicine could not accomplish this, neither could socialization of medicine."

"CIVILIZATION HANGS on scientific medicine, which by its prophylactic practice saves the world from its ailments. Commerce hangs upon civilization, in turn, yet commerce and civilization are both showing appreciation by giving medicine a slap in the face. Question in our minds is whether they know that they are driving us to the wall. It would be most timely if the medical profession were to distribute reprints of the old fable about killing the goose that laid the golden egg."—From editorial comments in *The Bulletin* of the Central Medical Council of Brooklyn, December issue.

THE MILWAUKEE MEDICAL TIMES SUCcinctly states that: "Public health agencies and institutions have a decided advantage in their ability to present statistics to the public. This cannot be so readily done by a medical society because gathering statistics by a government agency is one thing and the compiling of them by a medical society is another. Furthermore it is a costly procedure and an expenditure which would be difficult to justify, for the story of the health of a community can be as effectively told without a myriad of figures. * * The public should know that the basis of all public health programs, whether or not they are sponsored by public health agencies, is the practitioner of medicine; further, that most of the real preventive work, aside from that in contagious diseases, is done by the private practitioner." February 21, 1936.

"A CHECKUP OF THE living quarters of the tubercular poor of New York City shows that they are better than they were ten years ago. That is to say, three families in ten now have central heating; seven out of ten have bathrooms; they all have an average of a half a room more per family. So tenement housing is going ahead at the rate of two and a half rooms every fifty years. This spectacular advance in the show-

ing made by private capital in the housing field ought to stop all the nonsense about public building of tenements for the poor."
—From the editors of *Today* in the issue of February 22, 1936.

ANOTHER COMMENT concerning the relation of the physician in organized medicine and the public health departments to the public health comes from The Weckly Roster and Medical Digest of Philadelphia, to wit: "It is the unquestioned duty of medical organization to cooperate with all departments of public health and to promote such good public health work as should come within the province of the various departments of public health. We must not be unmindful, however, that departments of public health may become overzealous in their activities and it must be understood that every public health department that over-steps its definite functions of sanitation, hygiene, police power, and health propaganda is assuming prerogatives which can not be acceptable to medical organization. The physician must understand and retain the prerogative of treatment and all other prerogatives which are inherent to his personal medical practice.

"The physician is the one individual who by tradition, education, and experience is qualified to care for the mental and physical ills which visit humanity. Therefore all national, state, and municipal policies involving medical care of any character should be formulated only after consultation with and upon the advice of medical organization, in order that the practice of medicine shall be at all times kept under the control of the medical profession." February 22,

1936.

"IT REQUIRES NO great stretch of the imagination to see what would happen if medical care here became a state function. Indeed, the history of state medicine in other countries has given ample demonstrations. German insurance societies have always been used as effective political instruments by whatever party happened to be in power. The same situation exists in England, and only the sheerist optimist could deny that it would not occur here. With annual expenditures of increased millions would come added opportunities for graft. And in the huge administrative personnel rolls lie endless possibilities for patronage. Politics rather than knowledge would be power. Great expectations!"—The Detroit Medical News, February 21, 1936.

WRITING OF "The Doctor and His Hospital," the Bulletin of the Central Medical

Council of Brooklyn states that: "It is the lay board who obtain the charter and run the hospital. If doctors would realize this and olan and act accordingly, they would be spared many a heart ache. Although the hospital appointments of doctors are for the duration of the pleasure of the Board of Directors, in a well-conducted institution appointments to the medical staff are made by the lay board only upon the recommendations of the older members of the medical staff."

The article goes on to speak of the interdependence of doctor and hospital, and of the effect of the upheaval of the World War on medical practice. In concluding it states that, "Only by following true and trained and ethical medical leaders may physicians perform their work most effectively and their patients receive the best possible care. Each physician must take a keen interest in the welfare of his hospital, for he owes it to his patients, to the Board of Directors of the hospital, to himself, and to his colleagues, and to his own family. American medicine is at the crossroads. Either it is going to retain its world leadership or else it will degenerate to the position occupied by medicine in the countries where dictatorship prevails. The innocent sufferer will be the poor and helpless patient."

IN WRITING OF the Medical Economic

Security Administration for St. Louis, the St. Louis County Medical Society Bulletin makes some very pertinent remarks which may well apply to analogous situations of our own. "Those of us who are concerned with stemming the attempts which are being made to institute a form of social security that leaves out of consideration the rights of the medical practitioner, are just as much concerned over the apathy of our colleagues. It is true that our members are busily engaged in relieving human suffering in the practice of their vocation, but it is likewise necessary to not only have confidence, but to cooperate with the machinery that has been set up in this community to assist the people in securing good health security.

IN HIS ADDRESS ON February 12 at the Eighth Annual "Round-the-World-Columbia-Day" ceremonies at Columbia University, New York City, Dean Willard Rappleye said among other things that, "No phase of medical service and education is more important at present, both from the standpoint of the public and of the profession, than the proper training and identification of specialists for, in spite of the large number of physicians who claim to be specialists, there is actually a shortage of properly trained experts to meet the needs of the country."

THREE MILLION SPONGES

The annual report of the New York City Department of Hospitals discloses that at least half the population relies on municipal institutions for medical care. This means that the physicians affiliated with the Department of Hospitals are serving about three million persons without any financial return for their work. It also means that the medical men of Greater New York must look to fewer than half of the city's residents for paying patients, for presumably Dr. Goldwater's report does not include that vast section of the populace which frequents the voluntary hospitals for dispensary and under-cost ward service.

The continuous, increased absorption of patients by public and semi-public institutions will make a secure economic status untenable by the private practitioner unless steps are taken to readjust his relationship to the hospitals, says the New York Medical II'cek. There is no other profession that is asked or expected to make a gift to the community of the services on which it depends for a livelihood. Every other worker in the municipal hospitals, from the Commissioner down to the lowliest orderly, is

paid for his labor. The doctor alone receives no compensation for the essential service that he renders.

Conditions have changed from the early days of the hospital, when only a small percentage of the population sought its aid and the field of private practice was unaffected by institutional activities. The vast volume of work done in municipal hospitals today demands a readjustment of their financial relations with the doctor. It is unjust to expect medical service to go uncompensated when every other form of labor is paid. In view of the growing institutional encroachments on private practice, the profession can no longer afford to work in the hospitals without monetary return.

Last year the common cold cost more than \$5,000,000 in loss of wages. More absences from work are due to it than to any other illness.

omer niness

In view of an eminent doctor's assertion that influenza and alcohol produce the same effect, we are thinking of giving up influenza.—Punch. London.

Correspondence

[The Journal reserves the right to print correspondence to its staff in whole or in part unless marked "private." All communications must carry the writer's full name and address, which will be omitted on publication if aesired. Anonymous letters will be disregarded.]

A Plea For Prevention

Hempstead, N. Y.

To the Editor:

Having read your comments entitled "Syphilis: a Dual Problem," [page 193, Feb. 1 issue] I wish to state that syphilis is so much more of a problem than appears on the surface. If rapid sterilization is to be discarded these cases should be isolated so as not to spread the disease. To control the spread of this disease should be our first consideration.

The fact that syphilis can be practically eliminated as has been done in Sweden, Norway, Denmark, and England, should

stimulate us to accomplish as much.

I hope that in considering this disease, you will study the ways and means of eliminating syphilis as a disease in the United States.

The future will see syphilis as rare a disease as typhoid is today. It would be unfortunate if our State Medical Society should not take a leading place in meeting this great problem.

Very truly yours, E. H. SANITER, M.D.

February 18, 1936

Sickness Prevention Thru Saving by Labor!

565 Park Avenue, New York City.

To the Editor:

If the "old gag"—or calumny against some mythologic rooster—in the first paragraph of your editorial, "Comparisons Are Instructive," [page 270, Feb. 15 issue] had followed the second paragraph to humorously emphasize the absurdity of Dr. Elliott's contention, I'd have more hope for the intellectual integrity of my profession.

Some years ago I learned that trying to stop the errors of my fellows is a thankless

task. Nevertheless, and at the risk of being called "a bear for punishment," I want to express my condemnation of the suggestions and implications contained in this editorial.

History is replete with political spoilsmen and union labor leaders who squeezed more and more revenue out of their subservient followers, by pointing to others who were being bled whiter than they. But, when the medical profession stoops to such specious reasoning, I think it is high time someone should object.

With our profession's lofty heritage of study and intellectual courage, it is a sad spectacle to see the New York State Journal of Medicine reach down to the hod-

carrier for precept.

Far better had you devoted this space to condemning the outrage being perpetrated upon the average wage-earner by his union leaders. If the laborer had the \$100.00 to \$300.00 of his earnings, now taken away from him by his ruthless leaders, to put into better living, he and his family would have better health; which is a legitimate concern of our profession.

Sincerely, Charles B. Slade, M.D.

February 17, 1936

A Correction

Binghamton, N. Y.

To the Editor:

The February 1, 1936, issue of the Journal contained an essay by Dr. Thomas C. Peightal, entitled "Pelvic Infection—Laboratory Aids in Diagnosis and Treatment." The discussion was erroneously attributed to me, when in fact it was opened by Victor W. Bergstrom, M.D., of Binghamton. Will you not correct this error?

Very truly yours
CHARLES J. MARSHALL, M.D.

February 14, 1936

THEY MERIT CAUSTIC CRITICISM

Even the authors of the Caustic Poison Act might be amazed at some of the violations which are prosecuted under the Federal Food and Drug Administration. In the latest published list of judgments under the Act, three of the eight cases reported dealt with toys. One was a balloon outfit which included a dangerous acid to be

used in generating gas for the balloon. Two cases resulted in taking off the market miniature educational chemistry outfits that included dangerous chemicals.

Charles Mayo remarks that what a doctor has under his hat is far more important that what he has in his laboratory.

Annual Meeting

Committee on Arrangements

THE ANNUAL BANQUET

The Annual Banquet of the Medical Society of the State of New York will be held Tuesday excuing, April 28, 1936, at seven o'clock Grand Ballroom, Waldorf-Astoria Hotel

The tickets will be \$5.00, and each ticket will carry a stub entitling the bearer to the Reception and Dance at ten-thirty PM in the Sturlight Roof, Waldorf-Astoria Hotel No admission for the Reception and Dance will be possible without the stub that is part of each Banquet ticket No individual tickets for admission to the Reception and Dance will be issued other than the regular Banquet ticket

Tables are arranged for ten and reservations for tables will begin on April 1 Allotments will be made in the order of receipt of checks, money orders or cash The issue of tickets for the Banquet will be limited to 1000, and no allotment or sale of tickets will be made after the cash reservations have reached 1000

For reservations address the Secretary of the Medical Society of the State of New York, Dr. Duniel S. Dougherty, 2 East 103rd Street, New York, N. Y.

Members desiring to be seated with friends should endeavor to make up their own seating arrangements and send the list of names of guests, with check, to the Secretary

Late reservations are always associated with some embarrassment and the Committee on Seating have great difficulty with this group Please assist the Committee by making reservations early and sending lists of names of guests

CHAS GORDON HEYD, Chairman

Clinic Day

On Thursday, April 30 1936, clinics will be held in all of the hospitals of New York. City, in all specialties of medicine The visiting physician can arrange his time to spend the morning in one institution and the afternoon in another

The subjoined information is provided giving the approximate taxical fare and minutes to reach the designated hospital. The bus, clevated and subway service is also included and employment of these agencies of transportation is suggested where any relatively great distance is to be covered.

At noon on Wednesdry, April 29th, there will be available at the registration booth of the Society, at the Waldorf-Astoria Hotel a list of all of the clinics of the hospitals of New York City The Directory of Hospitals and Medical Schools, however, will be published only in the Journal It is suggested that visiting physicians keep thus list as it will aid them in calculating their time

Admission to the various hospitals will be without cards of admission as all of the hospitals have agreed with the Committee of Ariangements to open their clinics to the visiting physicians

Transportation Guide

Showing the approximate taxicals fare and time required for reaching hospitals from Wildorf Astoria Meter rates will be charged but no extra charge is made for additional prassurgers.

5th Ave bus-All north and southbound buses on 5th Ave stop at even numbered streets only

Last side clerated—3rd Ave, nearest station at 47th St and 3rd Ave 2nd Ave, nearest station at 50th St and 2nd Ave

East side subreay—Nearest station at 51st St and Lexington Ave for local trains express trains at Grand Central Terminal 42nd St West side subreays—BMT nearest station at 49th St and 7th Ave for local trains, express station at Times Square, 42nd St 1 RT Broadway 7th Ave nearest station at 50th St and Broadway for local trains, express trains at Times Square 42nd St

Directory of Hospitals and Medical Schools

Hospitals and Medical	Schools	5	
	TANICABS NPPRONIMATE		
	Tare.	Minute	
Beekman Street Hospital Beekman and Water Sts Take 2nd Ave elevated at 50th	\$1 25	20	
St downtown to Fulton St Walk one block north Bellevue Hospital Foot of East 26th			
St	80	15	
For surgical clinics in buildings I and K enter it 28th St and 1st Ave For clinics in out pa- tient department in d spensary buildings, enter at 26th St and 1st Ave			
Beth Israel Hospital Stuyvesant Park East Broad Street Hospital 129 Broad St	50	10 25	
Take 2n1 Ave elevated at 50th St down own to South Ierry Walk north two blocks Bronx Hospital, Fulton Ave and	1	23	
189th St Take 3r! Ave elevated at 53rd St uptown to East 143rd St Wilk two blocks south	2 35	30	
Cancer Institute 124 E 59th St	45	10	
a contract of the contract of			

City Hospital, Welfare Island College of Physicians and Surgeons,	.75	15	Walk three blocks east and two blocks south.		
168th St. and Fort Washington Ave.	1.80	25	Lying-in Hospital, 2nd Ave. and 17th	.85	20
Take uptown Broadway-7th Ave. subway at 50th and Broadway to 168th St.			Take 3rd Ave. elevated at 47th St. downtown, getting off at 18th St. Walk two blocks		
Columbus Hospital, 227 E. 19th St	.80	15	south, Maphattan Eyc, Ear and Throat Hos-		
Take Lexington Ave. subway at 51st St. downtown to 19th St.			pital, 210 East 64th St	.75	15
Walk east. Community Hospital, 8 St. Nicholas		0.5	East 60th St.	.55	10
Pl. Take bus Nos. 2, 3 or 4 on 5th	1.65	25	Medical Center, 168th St. and Fort Washington Ave.	1.80	25
Ave. northbound getting off at 110th St., St. Nicholas and Lenox Aves.			(College of Physicians and Sur- geons, Presbyterian and Sloan Hospitals.)		
Cornell University Medical College.	80	15	Take uptown Broadway-7th Ave. subway at 50th and Broadway		
1st Ave. and 27th St	.80 .75	15	to West 168th St. Memorial Hospital, 2 West 106th St.	1.05	20
Detention Hospital, 8th St. and 6th	.75	15	Take Broadway-7th Ave. subway	1.03	40
Fifth Avenue Hospital, 5th Ave. and 105th St.	.80	15	at 50th and Broadway uptown to 110th St.		
or 4 uptown to 104th St.			Metropolitan Hospital, Welfare Island Midtown Hospital, 309 East 49th St.	.75 .40	15 10
Flower Hospital, 450 E. 64th St Fordham Hospital, Southern Blvd.,	.65	15	Misericordia Hospital, 531 East 86th St.	.85	15
Fordham	2.75	35	Take Lexington Ave, subway at 51st St. uptown, getting off at		
subway Fordham			86th St. Montefiore Hospital, Gun Hill Road	200	40
Road. Take City Island bus No. 12 or crosstown street car			and 210th St	2.85	40
No. 207, getting off at Southern Blvd.			take northbound Lexington-Jer- ome Ave. subway train to		
French Hospital, 324 W. 30th St Gouverneur Hospital, Gouverneur Slip	$\frac{.60}{1.10}$	15 25	Moshulu Parkway. Mosrisania Hospital, Walton Ave.		40
Take 2nd Ave. elevated at 50th St. downtown to Canal St.			At Lexington Ave. and 51st St.	2.25	30
Take taxi to hospital. Harlem Hospital, Lenox Ave. and			take Lexington Ave. subway uptown to 167th St. Walk cast		
136th St	1.20	20	one block, north one block. Mount Sinai Hospital, 100th St. and		
take Jerome Ave. subway northbound changing at 125th			5th Ave	.80	15
St. to uptown local, getting off at 138th and Mott-Haven Sts.			or 4 northbound to 100th St. Neurological Institute, 706 E. 168th		
Walk two blocks south.			St Take uptown Broadway-7th Ave.	1.85	30
Hospital for Joint Diseases, 1919 Madison Ave.	1.15	20	subway at 50th and Broadway to West 168th St.		
Take Lexington Ave. subway at 51st St. to 125th St. Walk two			New York Academy of Medicine, 103rd St. and 5th Ave	.80	15
blocks south and one block east.			Take 5th Ave. bus Nos. 1, 2, 3, 4 or 7 northbound to 103rd		
Jewish Maternity Hospital, 270 East Broadway	1.40	30	St. New York Eye and Ear Infirmary,		
Take 2nd Ave. clevated at 50th St. southbound to Canal Street.			218 2nd Ave	.60	15
Take taxi to hospital. Jewish Memorial Hospital, Dyckman			School, 450 East 64th St	.55	10
and River Rd	2.50	35 .	68th St. New York Orthopedic Hospital, 420	.75	15
subway train at 50th and Broadway to Dyckman St.			East 59th St	.50	10
Take taxi to hospital. Knapp Memorial Eye Hospital, 500			West 50th st	.30	5
W. 57th St	.60	15	New York Postgraduate Hospital, 303 East 20th St New York University and Bellevue	.80	15
Ave. Take 5th Ave. bus No. 3 north-	1.35	20	Hospital Medical College, Foot of	.80	15
bound to 130th St. and St. Nicholas Ave. Walk west one			East 26th St		25
block. Lebanon Hospital, Westchester and			Fort Washington Ave	1.80	23
Caldwell Aves. At Lexington Ave. and 51st St.	2.00	35	subway at 50th and Broadway to West 168th St.		
take Jerome Ave. subway train to 149th St. and Mott Ave.,			Reconstruction Hospital, 395 Central Park West	1.00	15
changing to Bronx Park Train.			Rockefeller Institute, York Ave. and 66th St.	.55	10
getting off at Jackson Ave. Walk two blocks east.			Roosevelt Hospital, 59th St. and 9th	.60	10
Lenox Hill Hospital, Park Ave. and 77th St	.45	10	St. Francis Hospital, Brook Ave. and 142nd St.	1.50	20
St	.30	10	At Lexington Ave, and 51st St.		
Lincoln Hospital, Concord Ave. and 141st St	1.55	20	Point subway uplown, getting off at Brook Ave. station.		
Take Lexington Avc. subway train at 51st 5t. to the Palaging at 125th, 5th to Palaging at 125th,			Walk north four blocks. St. Luke's Hospital, Amsterdam Ave.	4 4 4	90
ing at 125th St. to Relham Bay or Hunts Point train, get- ting off at East 143rd, St.			Take 5th Ave. bus No. 4 north-	1.15	20
on at 1451d 1451d			bound, getting off at Amster-		

		Sydenlam Hospital Manhattan Ave and 123rd 5t Fake 5th Ave Lus No 3 north	1 25	25
55	10			
		Nicholas Ave Walk south one		
80	15	block		
		Roman e Hostital, 141 West 109th		
1 80	25		1 10	20
		Take 5th Ave bus No 4 north bound, getting off at Amster dam Ave walking south one	1.0	-0
60	10	1 lock		
	80 1 80	80 15 180 25	and 123rd 5t	and 124rd 5t

TO THE CHAIRMEN OF ALL COUNTY WORKMEN'S COMPENSATION BOARDS

At a meeting of the Industrial Council of the State Department of Labor held on February 27, a qualified physician was examined on a complaint filed against him that he was referring patients to attorneys and licensed representatives

At this hearing it was revealed that this practice has been developing in certain sections of the State, and the Industrial Council is of the opinion that the practice should be stopped at once. The Council adopted the following resolution and requested that it be promulated throughout the State for the

information of all practising physicians

Whereas, it has always been in violation of the ethics of the medical profession for pliyst crins to recommend to their patients the names of attorneys or licensed representatives to represent their at compensation learnings, be it

Resol.ed, that the Industrial Council hereby expresses its unqualified disapproval of such practice, and recommends that any authorized physician found guilty of this practice be called before the Compensation Board of the County Medical Society for disciplinary action

DAVID J KALISKI, M.D., Chairman

YOUNG TREES TRIM EASIEST

Investigations in Germany show a remarkable difference in the effect of the loss of a limb on old and young persons As reported in a German medical journal, when a limb is amputated during youth, the handicap can be sufficiently mastered Moreover, traumatic neuroses and personal injury neuroses are scarcely ever found in young persons Amputation taking place during the period of involution or senility, when the patient no longer possesses the agility of youth, produces quite different results. The psychic condition is different, optimism and vital energy together with a stern will to overcome the handicap are no longer present In middle aged adults the reaction to the loss of a limb depends largely on idiosyncrasy

Intellectual predisposition of course plays a decisive part in such cases and external factors, such as environment, early training and education, are important. The occupational background enters into the picture Noteworthy are the differing reactions produced by the type of indemnification received for the injury by the patient. When it takes the form of an income the recipient regards the indemnity as insufficient, whereas settlement in a lump sum is seized on as a welcome prize This lump sum settlement has no noticeable influence on the rehabilitation of the crippled person, but the life long income often prevents him from striving with all his energy for the restoration of his working capacity

TO DEMONSTRATE JOHNS HOPKINS LINE TEST AT CONVENTION

An exhibit certain to alouse great interest and attract attention at the coming Convention of the Medical Society of the State of New York, will be the Johns Hopkins line test for Vitamin D potency actually demonstrated in the booth of the Wisconsin Alumni Research Foundation These tests will be conducted continuously by biochemists affiliated with the Foundation

The Steenbock Irradiation Process, which employs ultraviolet rays in order to activate certain food and medical products with vita-

min D will be the main topic in Space 90 Various products such as Viosterol and tradiated milk and foods will be shown the background of the display will demonstrate the laboratory technique employed in conducting the Johns-Hopkins Line Test

By means of this test, the vitamin D products licensed by the Wisconsin Alumin Research Foundation are continually assayed in order to make sure that the vitamin D potencies are uniform, thus facilitating accurate dosare

Society Activities

Malpractice Insurance Committee

The Malpractice Insurance Committee are very happy to bring to the attention of the Membership the communication from Mr. W. T. Maudsley, General Manager of the Yorkshire Insurance Company of London, England. The Yorkshire Insurance Company of London, England, is one of the

largest and most conservative insurance companies in the world. It was organized in 1824, transacts a world wide business, with assets well over \$75,000,000.

> CHAS. GORDON HEYD, Chairman CARL BOTTTIGTR FREDERIC E. ELLIOTT

TELETHONE N AVENUE 2618 (GLINES)

ESTABD 1824

TELEGRAPHIC ADDRESS "YORKSHIRL LONDOY CODES BENTLEY'S ABC SMFON LIEBERS

THE

YORKSHIRE INSURANCE COMPANY

LIMITED

Yorkshire House.

London, 10th January, 1936.

THE GENEPAL MANAGER and mark your reply

FIRE LIFE ANNUITY PERBOYAL ACCIDENT

PMPLOVI RS LIABILITY HURG LARY

FIDFIITY PLATE OLASS

LIVE STOLE

MARINE

FOREIGN DEPT WILLIAMR.

> Dr. C. Gordon Heyd, 116, East 53rd Street, NEW YORK.

Dear Sir.

We have your letter of the 26th ulto., and may advise you that the Yorkshire Indemnity Company being entirely owned by ourselves its liabilities will be taken care of by us so long as they exist in the same way as our own liabilities both in the United States and elsewhere.

Yours faithfully,

General Manager

Committee on Legislation

Bulletin No. 6

February 19, 1936

The following bills have been introduced since the issuance of our last regular

hulletin:

Senate Int. 829-Byrne, adds new section 189, Lien Law, by providing for liens of hospitals, physicians, and nurses for care of persons injured as result of negligence of other persons or corporations. Referred to the Judiciary Committee.

Comment: This is identical with one of

the bills that Senator Byrne carried last year, except that it carries an exemption of

\$300 instead of \$1000.

Senate Int. 835-Baldwin, adds new section 21, Vehicle and Traffic Law, for annual physical examinations of chauffeurs, for revoking licenses on failure to pass examination, and for suspension where ailment is temporary. Referred to the Motor Trans-

portation Committee.

Comment: To the legislative committee appointed to investigate motor transportation it has been suggested that chauffeurs should be obliged to pass a physical exami-nation before being licensed. Similar suggestions have been made to the Department of Motor Vehicles, and the commissioner is seriously considering what might be done along this line. Our interest in the bill is that we should be called upon to make the examinations.

Senate Int. 840-Baldwin, amends the Vehicle and Traffic Law, by requiring all license holders to submit to examination for fitness, every four years. Referred to the

Motor Transportation Committee.

Comment: Another bill looking toward the physical examination of drivers of motor vehicles. It is probable that neither of these bills will be enacted this year, but the com-missioner has expressed a desire to discuss the matter with the proper committee of

our Society.

Senate Int. 855-Schwartzwald, amends section 25, repeals 320, Public Health Law, for direct reports to State Health Department or district health officer of certain communicable diseases occurring in districts of less than 50,000 not having a whole-time health officer, or in State institutions or tuberculosis hospitals, and relative to reports by laboratories. Referred to the Health Committee.

Comment: This is a Department of Health measure intended to improve report-

ing service.

Senate Int. 867-Twomey, amends Section 1361, Education Law, relative to pharmacy, by striking out "sale" from provision that article shall not apply to manufacture and sale of proprietary medicine. Referred

to the Education Committee.

Comment: This is intended to close a leak in the Pharmacy Law by which barbituric acid and other allied preparations are at present finding their way to the public without being prescribed by physicians.

Senate Int. 878-McNaboe, adds new subd. 13, section 3-a, new section 421-a, Public Health Law, creating a division of narcotic control, defining its powers and duties, and appropriating \$25,000. Referred

to the Finance Committee.

Comment: The Department of Health was a year ago given authority to exercise some control over the distribution of narcotic drugs. There is no regularly organized bureau and an inadequate appropriation, according to Mr. McNaboe, and his bill is intended to correct that situation.

Senate Int. 898-Wicks, adds now Art. 59, Education Law, for regulating practice of opticians, Referred to the Education

Committee.

Comment: The opticians and the optometrists separated themselves several years ago when the optometrists had enacted a law drafted along the lines of the Medical Practice Act. They are at present proud of their ethical conduct. The opticians have no such regulation and some of their leaders would like to have a legal control exercised over their entire group. They admit that there is much abuse of the public through advertising and unethical practices which should be made illegal.

Senate Int. 909-Kelly, amends section 387, Public Health Law, by requiring commissioner to receive any medical certificate certifying to performance of a postmortem examination and result thereof where original of death certificate shall have been theretofore filed, provided medical certificate is made and signed by physician performing examination. Referred to the Health Com-

mittee.

Comment: This bill did not originate with the Department of Health and we are informed that it is not acceptable to the Department. We haven't had an opportunity to discuss the bill with Mr. Kelly and do not know why there should be the necessity for this extra certification.

Senate Int. 910-Schwartzwald; Assembly Int. 1055—Bush; amends section 202, Mental Hygiene Law, for excepting licensed private institutions from local zoning ordinances and ordinances enacted subsequent to date of licensing. Referred to the Penal Institutions Committee in the Senate and the Health Committee in the Assembly.

Senate Int. 918—Dunkel: Assembly Int. 1134-Milmoe; amends section 1361, Education Law, by providing no manufacturer or wholesaler may sell any drug, medicine, chemical, prescription or poison containing poisonous, deleterious or habit-forming drugs to any person or corporation unless such person or corporation has been duly authorized to sell such drugs, medicines. chemicals, prescriptions or poison at retail. Referred to the Education Committees.

Comment: Originated with the State Association of Pharmacists.

Senate Int. 988—Thompson; Assembly Int. 1170—Potter: adds new section 189, Lien Law, giving public hospitals and private hospitals supported in whole or part by charity, a lien on rights of action, claims or demands of any person receiving treatment and maintenance on account of personal injuries received as result of negligence. Referred to the Judiciary Committees.

Comment: A new hospital lien bill. This bill is quite different from the other two. It provides for a lien for hospitals alone and carries no exemption clause. All awards or settlements are attachable. The lien is to cover reasonable charges for treatment, care and maintenance of the injured person at ward rates.

Senate Int. 1017—Hendel: Assembly Int. 1201—Cariello; adds new section 55-d, Insurance Law, requiring insurance companies to reserve out of proceeds of any life, accident or group life insurance policy, sum not exceeding \$500 for paying funeral expenses. unless undertaker's receipt is presented or proof is given that estate is sufficient to pay such expenses. Referred to the Insurance Committees.

Comment: Senator Hendel is willing to have this bill amended so as to provide that physicians' accounts may take equal standing with the undertakers'. It is Mr. Cariello's bill, however, and we have not had an opportunity to discuss the matter with him.

Senate Int. 1030—Egbert; Assembly Int. 1158—Swartz; amends section 432, Correction Law, by providing qualifications of superintendent of institution for male defective delinquents at Napanoch shall be prescribed by correction commissioner, existing provision requiring him to be a welleducated physician and medical college graduate with five years' institutional ex-perience. Referred to the Penal Institutions Committee.

Comment: Napanoch is so large that it supports a regular medical staff, and inasmuch as the duties of the superintendent are no longer medical but entirely administrative, the Department of Correction feels that the requirement that the superintendent be a physician should be rescinded.

Assembly Int. 988-Miss Byrne, amends group 15, subd. 1, section 3, Workmen's Compensation Law, by including in provisions of the law an intern in a prison, reformatory, insane asylum or hospital maintained by a municipality or other subdivision of the State, Referred to the Labor Committee.

Comment: Includes interns employed in State or municipal hospitals under the provisions of the Workmen's Compensation

Assembly Int. 1026—Breitbart, amends section 940. Criminal Code, to permit bloodgrouping tests of criminals for identification purposes. Referred to the Codes Committee.

Comment: Includes blood-grouping tests with finger printing, photographing, and other procedures employed in the identification of criminals.

Assembly Int. 1151—Allen, reappropriates \$1,000,000 to Department of Agriculture and Markets, to pay indemnities of \$250,000 on account of bovine tuberculosis suppression, \$450,000 for Bang's abortion, \$200,000 for mastitis, and \$100,000 for expenses. Referred to the Ways and Means Committee.

Action on Bills: Senate Int. 12-Buckley -jury duty-lost and tabled (19-19). Senate Int. 233-emergency relief appropriation—passed Senate. Senate Int. 377— Quinn-bringing indigent persons into State -passed Senate. Assembly Int. 136-Taylor-physicians' testimony-passed Assembly. Assembly Int. 836-extending life of TERA to April 1, 1936-to Governor. Assembly Int. 919—E. S. Moran—voluntary health insurance - third reading in Assembly.

Hearings: March 11—Assembly Committee on Labor and Industries-all bills amending the Workmen's Compensation

Law.

Bulletin No. 7

February 26, 1936

Since the issuance of our last bulletin the following bills have been introduced:

Senate Int. 1063—Byrne, amends section 1259, Education Law, for endorsing without examination license to practice medicine of certain graduates of medical schools and colleges in a foreign state or country. Referred to the Education Committee.

Comment: This bill has been radically amended and the new matter now reads: "Notwithstanding the provisions of this article or of any other general or special law, no license or certificate, wherever issued shall be endorsed without examination

as a license to practice medicine in this State unless the holder thereof shall have graduated from a medical school or college registered as maintaining at the time a standard satisfactory to the Department."

Senate Int. 1065—Feld, amends section 1264, Education Law, by permitting revocation or suspension or disciplining of a medical practitioner who has advertised for patronage by means of handbills, posters, circulars, letters, stereopticon slides, motion pictures, radio or newspapers. Referred to the Education Committee.

Comment: This bill was prepared and

introduced at our request.

Senate Int. 1083—Schwartzwald; Assembly Int. 1356—Crews; appropriates \$100,000 for payment of expenses of Labor Department for prevention of silicosis and other dust diseases. Referred to the Finance Committee in the Senate and the Ways and Means Committee in the Assembly.

Comment: Provides an appropriation for the administration of the silicosis law in

case it is enacted.

Senate Int. 1084—Schwartzwald; Assembly Int. 1355—Crews; amends section 3, 15, adds new Art. 4-a, Workmen's Compensation Law; adds new section 222-a, Labor Law, for compensation for silicosis and certain injuries to the respiratory tract resulting from inhalation of harmful dust and for prevention of dust hazard in public works. Referred to the Labor Committees.

Comment: Prepared and submitted by the Department of Labor. It will receive prompt

consideration by the legislators.

Senate Int. 1185—Doyle; Assembly Int. 1375—Piper; repeals Art. 54, adds new Art. 54, Education Law, relative to the practice of optometry. Referred to the Education Committees.

Comment: The optometrists are rewriting their law to make it accord even more completely with our Medical Practice Act than it did before. They are also increasing their requirements. After 1941 a graduate in optometry will present, when applying for State examination, evidence of having completed two years' college preparation and three years in a professional school. Columbia University is the only institution that has a school of optometry at present. There was one in Rochester some years ago but it has been discontinued.

Assembly Int. 1306—Robinson, amends sections 570, 571, 573, 574, 577-b, 690, 691, repeals 577, 577-a, Education Law; adds new section 4-c, Public Health Law, by transferring to the Health Department functions of Education Department in administering medical inspection and health super-

vision of school children, and appropriating \$2,000. Referred to the Ways and Means Committee.

Comment: This bill was not prepared by either the Department of Education or the Department of Health. It is a long bill and difficult to describe adequately in so small a space. We shall be glad to send any person who is interested a copy upon request.

Assembly Int. 1394—W. Schwartz, adds new section 336-a, Public Health Law, for acceptance of Federal allotments of moneys for establishing and maintaining adequate public health services, including training of personnel in counties, health districts, and other municipal subdivisions. Referred to the Health Committee.

Comment: The Federal Social Security Bill carries an appropriation to be given to the states for public health work. This bill is an enabling act making provision for the acceptance and administration of any such tunds as New York State might receive.

Action on Bills: Senate Int. 12—Buckley—jury duty vote reconsidered—passed. Senate Int. 1084—Schwartzwald—Silicosis—reported. Assembly Int. 30—E. F. Moran—jury duty—put over to March 3rd. Assembly Int. 919—E. S. Moran—voluntary health insurance—put over to March 3rd.

Hearings: March 3—Senate Int. 898—Wicks—practice of optician—hearing before Senate Committee on Education.

Special Bulletin

February 28, 1936

The Legislative Committee, in session yesterday, considered the bills that have been introduced since their last conference and took action upon them. You will find below their decision with regard to approval or disapproval. In a few instances it was decided that no action should be taken. You will find a record of that, also:

Approved: Senate Int. 755, Coughlinnurse veterans, reinstatement. Senate Int.
829, Byrne—liens of hospitals, physicians
and nurses. Senate Int. 835, Baldwin—
physical examination chauffeurs (approved
subject to amendment). Senate Int. 840,
Baldwin—exam. of operators of motor vehicles (approved in principle). Senate Int.
855, Schwartzwald—reports of infectious
diseases (approved subject to amendment).
Senate Int. 867, Twomey—manufacture and
sale of proprietary medicine (approved subject to amendment). Senate Int. 918, Dunkel
—sale at wholesale of certain drugs. Senate
Int. 1063, Byrne—licensing of foreign physicians (late print 1334). Senate Int. 1065,
Feld—advertising for patronage by physi-

cians. Senate Int. 1083, Schwartzwald—prevention of silicosis. Senate Int. 1084, Schwartzwald—compensation for silicosis.

Assembly Int. 893, Rossi—examination for color blindness. Assembly Int. 988, Miss Byrne—Workmen's Compensation Law, interns. Assembly Int. 1026, Breitbart—criminals, blood-grouping tests. Assembly Int. 1151, Allen—indemnities, Bang's disease, mastitis, and tuberculosis. Assembly Int. 1306, Robinson—medical inspection of school children to be transferred to Dept. of Health.

Opposed: Senate Int. 878, McNaboe—establishment of division for narcotic control. Senate Int. 898, Wicks—practice of optician. Senate Int. 909, Kelly—death certificates. Senate Int. 1017, Hendel—payment of funeral expenses. Senate Int. 1030, Egbert—qualifications of supt. at Napanoch.

No Action: Senate Int. 800, Esquirol—distribution of damages recovered in negligence action. Senate Int. 830, Byrne—hospital lien bill. Senate Int. 910, Schwartzwald—zoning laws, private institutions. Senate Int. 988, Thompson—hospital lien bill. Senate Int. 765, Esquirol; Assembly Int.

Senate Int. 765, Esquirol; Assembly Int. 920, E. S. Moran, relating to hospitals, has been approved by the Committee.

Again we urge your active cooperation in opposing the several chiropractic bills (Assembly Int. 864, Hill; Assembly Int. 865, Hill). The chiropractors from all sections of the State are flooding the legislators with letters and postal cards urging favorable consideration of their bills, on the ground that they are recognized in forty-two states, and, therefore, can not be so far wrong. They head a number of the postal cards with the exclamation "One Hundred Million Americans Can't Be Wrong!" In all fairness to the legislators, they should have some protests from physicians and physicians' friends from all over the State. So please have as many doctors as possible drop your legislators a line of opposition, or send them a telegram. Here is an opportunity for Auxiliary Societies, where such have been organized. The ladies can solicit protests from their friends.

We are happy to report, since our last bulletin, an increase in the number of comments from county chairmen, but there are still a number to be heard from.

Bulletin No. 8

March 5, 1936

The following bills have been introduced since the issuance of our last regular bulletin:

Senate Int. 1248—Byrne; Assembly Int. 1529—Reoux; adds new section 31-a, Judiciary Law, for appointment by court of

an examining physician in a personal injury action, injured party, however, having right to have his own physician in attendance. Referred to the Judiciary Committees.

Senate Int. 1279—Bontecou; Assembly Int. 1632—Fromer; amends section 156, General Municipal Law, by providing at least one member of a child welfare board must be a World War veteran. Referred to the Cities Committees.

Senate Int. 1316—Dunnigan; Assembly Int. 1613—Sherman; adds new section 337-a, Public Health Law, by providing name of State Tuberculosis Hospital located near Oneonta shall be the Homer Folks Tuberculosis Hospital. Referred to the Health Committees.

Senate Int. 1317—Dunnigan; Assembly Int. 1660—Steingut; for old age assistance, aid to dependent children, assistance to blind, Federal aid for child welfare services, Federal aid for maternal and child health services, care and treatment of crippled children, etc.; imposing additional excise taxes and appropriating \$4,000,000 for Social Welfare Department. Referred to the Finance Committee in the Senate and the Ways and Means Committee in the Assembly.

Comment: This is the social security measure that was drafted by the Governor with the assistance of the Departments of Social Welfare and Health.

Senate Int. 1319—Kelly; Assembly Int. 1629—Dunn; appropriates \$5,000 to Cornell Veterinary College for study of vaccination for prevention and control of Bang's disease in cattle. Referred to the Finance Committee in the Senate and the Ways and Means Committee in the Assembly.

Senate Int. 1345—Feld, adds new Art. 28, General Business Law, for licensing by Secretary of State of all hotels in order to preserve the public health; for inspection by local health authorities; requiring a bond of \$100 for each bed, and appropriating \$50,000. Referred to the Finance Committee.

Senate Int. 1346—Feld, amends sections 13, 13-a, b, c, d, e, Workmen's Compensation Law, relative to liability of employer for medical treatment of injured employees, to selection of authorized physician to authorization of physicians by Commissioner, to recommendation for appointment of licensed physicians, to operation of laboratories and bureaus, and to licensing of medical bureaus, Education Department being substituted for County Medical Society for purposes of certification and recommendation. Referred to the Finance Committee.

Comment: Mr. Feld says this was introduced at the request of some physicians in his district who are dissatisfied with the manner in which the County Workmen's Compensation Committee operates They accuse it of being unfair in its endorsement of physicians for compensation work therefore, suggests that the authority for endorsement be taken from the County Societies and placed with the Department of Education Another exceedingly important feature in the bill is the deletion of that part of last year's Workmen's Compensation Law which regulates practice and collection of fees by hospitals

Senate Int 1389-Feld amends sections 1264, 1265, Education Law for annuling license or disciplining a medical practitioner on proof that physician has employed a person not licensed to practice in this State or has aided in practice of medicine a person not licensed, or has advertised for patronage by means of handbills, motion pictures, radio newspapers or magazines, etc., and relative to hearing of charges Referred to

the Education Committee

This bill carries the advertis-Comment ing prohibitions which we had incorporated

in another bill that was defeated

Senate Int 1393-Thompson, Assembly Int 1731-Potter, amends sections 1250, 1251, 1262, Education Law, for the practice of chiropractic, which is defined to be the adjusting of the human skeleton frame, excluding surgical operations with use of instruments, prescription or use of drugs or medicine, except that x-ray may be used for examination purposes Referred to the Education Committee

Comment A group of chiropractors from Long Island are not satisfied with the chiropractic bill that was introduced in the Assembly by Mr Hill, and Messrs Thompson and Potter have introduced this bill at their

special request

1404-Schwartzwald, As-Senate Int sembly Int 1690—Bush, amends subd 6, section 421, Public Health Law, by defining wholesaler, as applied to narcotic drugs, to be person who supplies others than consumers with narcotic drugs or preparations containing narcotic drugs that he himself has not produced or prepared Referred to the Health Committee

Sente Int 1407-Doyle Judiciary Law, for exempting from jury duty only clergymen, physicians, attorneys, persons belonging to Army, Navy or Marine Corps, active militiamen, police and firemen, officers of vessels, licensed pilots, and holder of an office under United States Referred to the Judiciary Committee

Comment Another jury duty bill Several bills of this character have already been defeated and one is undergoing amendments

Senate Int 1415-Howard, amends sections 13 b, g, 26, Workmen's Compensation Law, by making it a misdemeanor to violate provisions relating to medical care of injured employees and for enforcing claims for medical services or treatment rendered when employer has failed to secure compensation Referred to the Labor Committee Comment This, we are informed, is a

Department of Labor measure

Senate Int 1416-Howard, amends secttion 206, Labor Law, for the filing of physicians' reports in all cases of occupational diseases Referred to the Labor Com-

Comment We are informed that this is

also a Department of Labor measure

Assembly Int 1510-Conway, amends sections 1256, 1259, Education Law, by striking out provision under which a person who has simply declared his intention of becoming a citizen may be admitted to examination to practice medicine Referred to the Education Committee

Comment This bill requires that all who seek licensure to practice medicine in New York State must be citizens of the United States At present the law requires that a person simply declare his intention of be-

coming a citizen

Assembly Int 1539—Goldstein, adds new sections 50 a, b, Correction Law, requiring the keeping of certain records by warden or other institutional head, of persons admitted to prisons, jails or other institutions, and requiring physical examination of person upon admittance Referred to the Penal Institutions Committee

Assembly Int 1545-Parsons, creates temporary commission to study and analyze recreation, recreation activities and affiliated subjects as a means of preventing destruction of child life and juvenile delinquency, curbing criminal tendencies and promoting health standards, and appropriating \$20,000 Referred to the Ways and Means Committee

Assembly Int 1683-Neustein, adds new section 1765, Penal Law, making it a misdemeanor to sell or deal in inaccurate clinical thermometers, and defining maccurreies Referred to the Codes Committee

Assembly Int 1706-Marble, requires Education Department to give a certificate of exemption from examination for the practice of optometry to a person who prior to 1930 served for not less than eight years as technical assistant to an ophthalmologist in this State Referred to the Education Committee

Comment. Introduced by request and at

the request of a single individual who is a very capable technician but who has not the educational qualifications required for licens-

ure in the profession.

Assembly Int. 1719—Neustein, adds new Art. 21-a, Public Health Law, requiring state department to verify clinical thermometer standards at stated intervals, to promulgate requirements, specifications and tolerances, providing for identification of manufacturer and for authority to use New York seal. Referred to the Health Committee.

Assembly Int. 1720—Neustein, adds new section 1765, Penal Law, making it a misdemeanor for any person to sell a clinical thermometer not conforming to requirements prescribed in act. Referred to the

Codes Committee.

Action on bills: Senate Int. 12—Buckley -Jury duty-3rd reading in Assembly. Senate Int. 134—Desmond—testimony, physicians-reported. Senate Int. 220-Schwartzwald-vital statistics-passed Senate. Senate Int. 535—Schwartzwald—Mental Hygiene Law—gaining residence—passed Int. Senate 536—Schwartzwald—Health Law, powers, commissioner—passed Senate. Senate Int. 537—Schwartzwald—transportation, physically handicapped children—reported. Senate Int. 764—Esquirol—voluntary health insurance—amended. Senate Int. 765—Esquirol—conduct of hospitals—recommitted. Senate Int. 855-Schwartzwald —communicable diseases—passed Senate. Senate Int. 1065—Feld—physicians, advertising—recommitted.

Assembly Int. 30—E. F. Moran—jury duty—stricken from calendar. Assembly Int. 919—E. S. Moran, Jr.—voluntary health insurance—amended on 3rd reading. Assembly Int. 920—E. S. Moran, Jr.—conduct of hospitals—amended and recommitted. Assembly Int. 988—Miss Byrne—Workmen's Compensation Law, interns—passed Assembly. Assembly Int. 1158—Swartz—supt. at Napanoch—passed Assembly.

Hearings: March 10—S. Int. 442—Nunan—hours of labor of employees of all hospitals—hearing before Senate Committee on Labor and Industry. All bills relative to reorganization of county government—

Senate Taxation Committee.

March 11—Before Assembly Committee on Labor and Industries: A. Int. 93—Mccaffrey—physical examination, employees. A. Int. 1355—Crews—silicosis. A. Int. 115—Fitzpatrick—state hospital employees, hours. A. Int. 388—Ostertag—state hospital employees, hours. A. Int. 550—Fitzpatrick—state hospital employees, hours. A. Int. 585—Fite—state hospital employees, hours.

The Education Committee in the Assembly will vote on the chiropractic measures before it on Wednesday, March 11. Communicate at once with the members of the Education Committee urgina them to defeat the bills.

HARRY ARANOW

BERNARD B. BERKOWITZ B. WALLACE HAMILTON JAMES F. ROONEY LEO F. SIMPSON

Postgraduate Lecture Courses

conducted by

The Committee on Public Health and Medical Education

A course of postgraduate lectures, dealing with subjects of general medicine has been organized for the Sullivan County Medical Society, and started on Wednesday, March 4, with lectures given on each of five consecutive Wednesday evenings thereafter. This course was arranged by Doctor Luther Warren of the Long Island College of Medicine. An outline of the course, giving the dates, speakers, and subjects follows:

All of the lectures are by the faculty of the Long Island College of Medicine.

A course of lectures has been given jointly to the Greene and Columbia County Medical Societies, the meetings being held at Catskill and Hudson, alternately. Doctor Isadore Rosen, Professor of Dermatology and Syphilology in New York Post Graduate Medical School of Columbia University spoke to these societies on Syphilis, on February 18. The general comment was that his lecture was very instructive and practical.

Dr. K. R. McAlpin, of the Presbyterian Hospital, New York City, spoke to these societies on *Pernicious Anemia*, in Hudson, on March 3.

Public Health News

THE CONTROL OF VENEREAL DISEASES AND THE PROBLEM OF PROSTITUTION IN THE CITY OF NEW YORK

REPORT OF A SURCOMMITTER OF THE COMMITTEE ON PUBLIC HEALTH RELATIONS OI THE NEW YORK ACADEMY OF MEDICINE

THE PREVALENCE OF VENEREAL DISEASE

At the meeting of the Conference of Health Officers at Saratoga Springs in June 1935 Governor Lehman called attention to the need of better control of venereal discusses as one of the outstanding public health problems in this state. On the occasion of the recent opening of the Meinhard Health Center in Last Hirlem in New York City. Mayor LaGuardia likewise stressed the importance of this problem. In the light of this statesmanlike attitude on the actif of the Covergner of the State, and on the part of the Governor of the State and the Mayor of the City of New Yorl the facts
published in May 1935 by the United States
Public Health Service on The Frend of
Syphilis and Gonorrhey in the United States assume particular significance and constitute a

call to public action

The study reveals a startling incidence in the prevalence of venereal diseases in the United States On the basis of incidence rates per thousand population based on reports from representative communities in the United States there were during the past year 518 000 new cases of syphilis and 1 037 000 acute cases of gonorrhea or a total of 1555 000 fresh infec tions of venereal diseases. A second million individuals sought treatment for the first time who had passed the early or acute stages of their infection. The average incidence of first time admissions to any qualified medical source for treatment of a venereal disease was found to be 207 per 1000 population per year An in estigation by the American Social Hygiene Association in San Francisco Birmingham Dallas and New Orleans brought out the fact that twice as many individuals seel treatment across drugstore counters as come to a qualified medical source

The highest attack rate for syphilis occurs during the early idult ages sixteen to thirty years I xamination of our draftees during the World War revealed that six per cent of these millions of young men had venereal disease in an active stage. Because of the cumulative increase of the disease incidence with age seven out of every 100 persons in the United States above the age of forty are a potential syphilitic

treatment problem

The important survey of the United States Public Health Service was conducted in forty nine representative communities of the rition Reports were received from 39 000 medical sources charged with the health of approxi mately one fourth of the population. The most astonishing result of the survey is the revelation that seventy per cent of the colossal army of

persons infected with syphilis and one half of those with gonorrhen neglected their treitment until after the disease had reached the late stage Of those who sought treatment during the early stages of syphilis eighty four per cent discon tinued treatment before the disease was rendered noninfections

Annually more than 46 000 cases of syphilis re reported to the City Health Department and no one knows how many more remain unreported The New York State Health Commission in 1932 estimated that nine per cent of the population is or has been infected with syphilis Between five and ten per cent of the adult patients in the public wards of our hospitals are found to have syphilis about hith per cent of the males give a history of having had gonorrhea A study of venereal disease prevalence in New York City in 1928-29 reverled that about one per cent of the population was under treatment by physicians hospitals clinics and other authorized agencies on a specified date Many times this number fail to receive treatment or are madequately treated they may therefore continue to trans mit their infection to others. It was recently estimated by Dr Snow that about 315 000 cases of syphilis many of them still infectious are not under medical supervision thereby present ing the greatest public health problem in New York City

Of the cases of cardiovascular syphilis ad mitted to hospitals sixty six per cent have never received any anti-syphilitic treatment previous to the detection of their cardiovascular involvement It is the experience of our Medical Examiners that syphilis of the cardiovascular system is the commonest cause of sudden death

at certain ages

Approximately forty eight per cent of all the hospital beds in the United States are in his pitals for the mentally seed Syphilis is responsible for cleven per cent of all first admissions to state hospitals for mental diseases or for more than 57,000 hospitalized cases of mental

The past indifference of the public and of our government to the increasing prevalence of these the most widespread of all infectious diseases is due to almost complete ignorance of the problem and of the huge cost with which we are being burdened because of this neglect The public has no conception of the annual expenditures which it is incurring for the prolonged hospitalization and medical care of the many thousands who have been allowed to become permanently crippled or of the colossal social and economic losses involved. The expenditure of a small fraction of this sum would place adequate treatment facilities and professional personnel at the disposal of all patients in the early infectious stages of the disease, eradicate the infection in most instances so that it would not spread to others and ultimately reduce, the present costly load upon our hospitals, insane asylums, and relief agencies.

The ostrich-like attitude of the public and of the press and radio is due in part to the false notion that these diseases are always due to misconduct. It is not realized how widely they are spread to innocent women and children. According to the survey by the United States Public Health Service, approximately 18,000 women of child-bearing age in this country have active syphilis, and will transmit it to their children unless they receive adequate treatment during pregnancy. Gonorrheal eye infections in new born infants is responsible for two-thirds of the blindness in the new born and represents 3.3 per cent of all blindness in this country. Syphilis is also responsible for a great deal of blindness among adults, and congenital syphilis for blindness among children and young adults. Much of the invalidism among young married women is due to gonococcal infections of the pelvic organs. Gonorrheal infection is common among young female children.

THE POSSIBILITIES OF CONTROL

As the first requisite for their control we must eliminate the taboo against public dissemination of information concerning them. Our governmental authorities cannot and will not allocate adequate appropriations to control the spread of these infections unless the public

is fully acquainted with the facts.

The control of tuberculosis, which thirty years ago seemed equally difficult, is today approaching realization. Thirty years ago the mortality from this disease was almost 200 per 100,000 population; today, in some communities it is as low as forty per 100,000. In New York City it was sixty-five in 1934 and for the first nine months of 1935 it was reported at 58.2. The control of venereal diseases, especially of syphilis, is a relatively simpler problem than tuberculosis, for we are in possession of specific methods of curative treatment and know just how much treatment is required in most instances to eliminate the infectiousness of the disease in the early stage. We can prevent the spread of syphilis to others in the community by making adequate treatment available to all infected persons and by persuading them to take enough treatment at least to eliminate the infectiousness of the disease.

It has already been demonstrated in the Scandinavian countries of Europe and in England that this can be done. According to the last report from Denmark (February 1935), there were 4,500 fresh cases of acquired syphilis in Denmark and 3,000 in Copenhagen in 1919; by 1933 the number had fallen to 700 cases in the whole country and 200 in Copenhagen. Swedish data are even more striking. The annual report of the Chief Medical Officer of

the British Ministry of Health states that in England and Wales in 1933, only half as many new cases of syphilis were admitted to the 186 treatment centers as in 1920.

According to the last report the fall continued

in 1934 to a new low record.

The reduction has been accomplished by (1) frank presentation of the facts directly to the public, and (2) free and adequate treatment for all infected persons.

In Denmark and Sweden there is also (3) compulsory treatment for all venereal disease patients who are in an infectious stage of the disease, and (4) punishment for anyone who infects another with venereal disease. The legal provision for compulsory treatment not only brings the patients to the physicians but it keeps them from discontinuing treatment too soon. The punishment for infecting another does not keep patients with venereal disease from having sexual intercourse, but it leads them to take the greatest possible precautionary measures because they know that they may be subject to the law if they infect anyone.

ORGANIZATION OF TREATMENT FACILITIES

Aside from the necessity for the dissemination of information concerning these infectious diseases, we must also face the fact that the present provisions for treatment of infected persons in New York City are woefully inadequate. The inadequacy of many of our clinics and the cost of private care discourage many patients from continuing treatment. With a few exceptions, the clinics of our public and voluntary hospitals pay too little attention to the fact that they deal with infectious diseases and that their patients constitute a potential public health menace. The Venereal Disease clinics in our public hospitals have an inadequate amount of space at their disposal; their personnel is undermanned and often inexperienced; the physicians are unpaid and are too few to supervise the work or to examine and instruct the patients. The treatment received is therefore often inexpertly administered, under conditions which are disagreeable, and very often at hours incon-venient to the patients. As a result the patients become discouraged after a few visits and do not return to the clinic for the completion of their treatment. In parts of the city, such as Harlem, where the load is greatest, the facili-ties are the poorest. Patients who otherwise would accept treatment become discouraged, cease treatment and become spreaders of the infection.

Before progress can be made, the facts must be faced frankly. The present situation is due to several factors, one of which is the division of responsibility between the Departments of Health and Hospitals. In principle, all treatment should be carried out in hospital clinics. Unfortunately, the Department of Hospitals is now so over-taxed by the need for supplementing the crying deficiencies in almost all its activities, that it has found it impossible to devote as yet any adequate share of its resources to this problem. Recent discussions between the two Departments are likely to result in the formulation of a comprehensive plan for

venereal disease control, in which the respective responsibilities will be clearly delineated

Prevention of disease is primarily the con-cern of the Health Department Hospitals should be required to provide adequate freatment facilities in a manner that will hold the patients until they no longer constitute a danger to others In this there need be no conflict with the private practice of medicine, for it is part of any comprehensive plan of control to encourage and help private practitioners to take as large a share as possible of the burden of treatment. There need be no conflict with the voluntary hospitals for they should also be encouraged and helped by the Department of Health to assume an increasing share of the burden But if the spread of infection is to be prevented, all hospitals, clinics, prisons, and reformatories should be required by law to meet the standards of treatment facilities and per-sonnel demanded by the Health Department The existing regulations of the Sanitary Code are not enforced and there is no supervision by the Department of Health The chaotic situation which exists in this community can be corrected, not by lumping along as we have been doing so meffectively, but by placing the primary responsibility for carrying through a comprehensive plan of venereal disease control in the hands of the one agency which is concerned with preventive medicine

The present facilities in our public hospitals can be immediately expanded by establishing inght clinics. The required space and equipment, as well as adequate social service, nursing and medical personnel should be provided to meet the needs of each district of the City All clinics should be preferably within the organization of the existing hospital outpatient departments, when additional space is required, it should be rented in the district or else temporarily provided in one of the health center buildings until such time as adequate space is available within the hospital outpatient department. Voluntary hospitals may be persuaded to take over a share of the burden in each district by offering them free arsenicals and public health nurses for the follow up of their patients in return for an extension of their free work.

It is becoming increasingly difficult to secure voluntary medical personnel for venereal disease clinics, especially for syphilis clinics. The Health Department and some voluntary hospitals have paid the younger physicians who work in the syphilis clinics. The Hospital Department has not had the funds with which to pay physicians, except at the Gouverneur Hospital Provision for payment in all venereal disease clinics is essential Tire dollars is the usual remuneration for a two hour session.

The clinics likewise cunnot expect to obtain the required nurses or social service workers on a voluntary basis. Such personnel is of vital importance for the discovery of sources of infection and the follow up of delinquent pritents. It may even be practical to lend some of the public health nurses to private physicians for similar follow up work in their private practice. Under these circumstances, public health

nurses might serve temporarily under the direction of the private physician

In the registration and follow up of patients, a confidential relationship should be strictly observed, as far as compatible with the public interest, in order to encourage infected persons to utilize the treatment facilities which are provided

These activities—health education regulation and supervision of voluntary hospital clinics, expansion and administration of public hospital clinics and their extramural branches, diagnostic ficilities for early recognition of disease, assistance to private practitioners, etc—must all be coordinated under the direction of one person, a full time director of the Bureau of Venereal Diseases in the Department of Health A salary of \$3000 has been provided for the first time in the present city budget for a part time director for this bureau An adequate salary for a full time director is essential for his administrative and professional responsibilities require a min of high caliber

The magnitude of the present problem is due largely to past neglect. It now constitutes an emergency, the cost of which cannot be met today by the municipality without assistance. It is therefore proposed that a comprehensive program of venereal disease control be financed and administered for two years as a W PA project.

In proposing that the initial responsibility for the program of venereal disease control be centered in the Department of Health, it is understood that the ultimate aim is to transfer all treatment facilities to the Department of Hospitals where they rightly belong, include all extramural branch clinics which might prove to be needed permanently in those sections of the city which are not covered by public or voluntary hospitals. The desirable permanent administration of the several aspects of the problem would become clearer as experience is accumulated during the next few years.

THE PROBLEM OF PROSTITUTION

Annually, about 3500 prostitutes are brought before the Women's Court, of whom the majority are acquitted because of the lack of legal evidence. Since January 1st of last year, all are examined after arraignment and before trial and more than eighty per cent are found to present the clinical manifestations of an infection with syphilis or gonorrhea or both diseases

An inquiry made by the Welfare Council (May 1935) into the present functioning of the Women's Court in relation to the problem of prostitution in New York. City supplies the following pertinent comment on this matter "The number of customers each woman has in the course of a week has been valuously estimated. There may be as many as twenty a day Since, under the present operation of the law, even though amended to read "person" instead of "female' those customers are not taken into custody and examined, the chances of the spread of infection, even conservatively estimated, must be considerable, both to the legitimate contacts which these same men may have, as well as to other illicit ones."

An article in the November 1934 issue of the American Journal of Public Health gives a graphic illustration of the way in which syphilis spreads. The caption of the chart reads as follows: "A physician in a middlewestern city asked the State Health Department to trace the source of infection in 4 cases of fresh syphilis in his practice, all men. An investigation resulted which revealed 19 infections among 25 persons examined. Three of the original 4 men patients were infected by one woman, a prostitute. These men in turn infected 10 other women, 6 of whom were young girls. Four girls infected 4 other men. The fourth man was traced to a different source."

Although we are obliged to conclude that adequate venereal disease treatment of all persons brought before the Women's Court represents only a small fraction of the entire problem of venereal disease control, it nevertheless constitutes one important phase of the problem which cannot be neglected. Much is to be gained in the public interest by segregating all infected prostitutes (who comprise most of the prostitutes who are apprehended) and not releasing them from restraint or parole until they have received an adequate amount of treatment to render them noninfectious.

Special provision for therapy in a general hospital should be provided for young offenders who are still reclaimable socially. They should be sent to Kingston Avenue Hospital or to City Hospital and not allowed, as at present, to become hardened by months of association with socially hopeless women. The hardened offenders should be sent to the House of Detention, part of which should be converted into a hospital for this purpose. For cases which are released on probation there should be an adequate number of probation officers—not one to 200 or 300 as at present. Every case transferred for treatment to a clinic or private physician should be followed up until treatment is concluded. The treatment given in the House of Detention, the Workhouse, and in all prisons or reformatories, should conform to standards laid down by the Department of Health. No convicted prostitute should ever be paroled until rendered noninfectious. The woman placed on probation should not be released until a certificate of adequate treatment has been filed with the Court by the Department of Health.

À strict enforcement of the recently enacted State health statute* will render trial and imprisonment largely unnecessary. The new State Law authorizes forcible hospitalization by health departments of persons infected with venereal disease without court action. An agreement to accept medical treatment in a hospital or clinic until no longer infectious, should be accepted in

most instances in lieu of bringing the offender to trial. If socially reclaimable offenders are then referred to some general hospital, confinement in which will not constitute a stigma, time and opportunity will thereby be provided for the work of the social agencies. Hospitalization might be accepted in lieu of trial even for many chronic offenders. In this manner the Department of Health may relieve the court of a large share of its present burden and work in intimate collaboration with the responsible social agencies.

This plan will not be in any way analogous to the inspection and licensing of prostitutes practiced in some foreign countries. The women who have accepted treatment will not receive any certificate of freedom from venereal infection. A prostitute who has received adequate treatment but who subsequently continues to ply her trade and is again arraigned before the court, should be considered as having exposed herself to renewed infection. She may again accept treatment in a clinic or be hospitalized or be brought to trial. In this manner prostitution will be more effectively discouraged than by the present trial and acquittal method; the police will be relieved of the degrading method of collecting evidence of actual prostitution, and the public will be protected more adequately.

CRITERIA FOR DIAGNOSIS

The magistrates of the Women's Court are often confused by the divergent views of physicians concerning what constitutes evidence of an infectious venercal disease. An authoritative medical opinion is required in order to guide the Court.

The demonstration of the spirochete in syphilis and of the gonococcus in gonorrheal infections is often difficult, even in persons who are still highly infectious. This in especially true in women. Prostitutes and vagrants are continually exposed to infection with venereal diseases, and ultimately most of them become infected. For the protection of the public, it is therefore necessary to formulate clinical criteria upon which the diagnosis may be based with a reasonable degree of accuracy, even in the absence of demonstrable specific organisms.

In women who are arraigned on a charge of prostitution or vagrancy, the following clinical manifestations and laboratory findings should be the criteria for the diagnosis of gonorrhea:

1. The presence of the gonococcus in smears or cultures from the secretions, even when there are no clinical manifestations of the disease, is evidence of gonorrheal infection. 2. Purulent or mucopurulent discharge from the urethra, Skene's glands, Bartholin's glands, cervix or rectum, or any combination of these constitutes

^{*}Laws of New York, 1935—Chapter 587, Section 2. Section 343-0 of such chapter as last amended by chapter 481 of the laws of 1931, is hereby amended to read as follows: Section 343-0 Treatment Required. Every person who, by the examinations as provided for in section 343-m, is found to be suffering from, or infected with any venereal disease, or who is reported to the health officer as suffering from or infected with energed disease, shall be required by the board of health, or the health officer of the health district in which such person resides, to conform to rules and regulations of the state sanitary code, and in the city of New York of the sanitary code of the board of health of said city. Such rules and regulations may provide for the isolation and treatment of persons so infected and the local board or health officer shall in that case define the place and limits of the area within which such persons shall be isolated, and the conditions under which such isolation and treatment shall be terminated. Any of such rules and regulations may be reviewed in the courts and tested as to reasonableness in a proceeding instituted by any person directed to conform therewith pursuant to this article.

reasonable grounds to warrant a tentative diagnosis of gonorrhea, even in the absence of demonst due to the gonorrheal Trichon

conditio With 1 The should be of primary secondary or tertiary active lesions of the skin and mucous membranes, or 2 A positive Was-sermann reaction in women of child-bearing age, and in men and women who have acquired the disease within five years and cannot prove that they have had adequate treatment to elimirate the potentially infectious stage-numely, 20 injections of an arsenical and 20 injections of a heavy metal

SUMMARY OF ESSENTIALS OF COMMUNITY CONTROL

The essential elements of an effective program for the control of venereal disease may be summarized as follows

Public health education

2 Availability of treatment for all infected persons, including an adequate number of hos-

- pital beds for patients requiring such facilities 3 Instruction of general practitioners in approved modern methods of diagnosis, treatment and follow up
- 4 Free diagnostic services for physicians so as to facilitate prompt and early recognition of
- 5 Distribution under suitable control of free arsenicals to private physicians for the treatment of persons unable to pay a full fee
 - 6 Encouragement of reporting by private

physicians of all new cases of venereal disease by exact initials and date of birth of patient, to improve accuracy of registration

7 Cooperation of the public health authorities with private physicians, municipal and voluntary hospitals, outpatient departments and other clinics, so as to enable them to keep patients under control until cured and to bring the source of infection under treatment

8 Assignment of public health nurses to clinics and, upon request, to private physicians for follow up of delinquent nationts and of contacts, and for distribution of health information to infected persons

9 Setting up of standards for venereal dis-ease clinics by the Department of Health in cooperation with proper medical committees

10 Requirement of routine tests for syphilis

in the venercal disease clinics

11 Provision for the detection and treatment of prenatal syphilis

12 Regulation and supervision of treatment and follow up of prostitutes and vagrants legally detained in hospitals, prisons and reformatories or paroled for treatment to clinics or to private physicians

> Georgi BAEHR, Chairman DAVID N BARROWS A BINSON CANNON GARDNER HOPKINS GEORGE W KOSMAK ALFYANDER R STEVENS E H L CORWIN, Secretary

Approved by Whole Committee November 4, 1935

Pneumonia Control Program

LABORATORY SERVICE FOR PNEUMOCOCCUS TYPE DIFFERENTIATION

RUTH GILBERT, M.D., Albany

Irom the Division of Laboratories and Research, New York State Department of Health

Laboratory facilities represent an important part of the foundation on which the program for more adequate treatment and care of pneumonia patients rests. The type of pneumococcus inciting the disease process must be determined before serum therapy can be undertaken Thus, it is essential that laboratory findings be promptly available so that if serum therapy is indicated it can be instituted as early as possible in the course of the infection

New York State is most fortunate in the extent to which liboratory service has been developed Laboratories which meet adequate standards of efficiency are approved upon request by the state commissioner of health In the state outside of New York City which operates under a Sanitary Code of its own, ninety-five laboratories have received approval for the examination of specimens from patients with pneumonia More such laboratories should be available, and it is hoped that in the near future no hospital in the state will be without approved laboratory service and that laboratories in such institutions will provide facilities for the districts in which they are located

Even under present conditions, however, aside from sparsely populated areas, particularly those in mountainous districts, sputum from a pneumonia patient can be sent by motor to an approved laboratory and the findings made available within an hour or two after the physician has collected the specimen If members of the family, a neighbor, or other interested persons appreciate the importance of having specimens from pneumonia prtients examined promptly, probably very few instances will arise in which the physician cannot readily make some arrangements for the transportation of a specimen to the nearest approved laboratory.

Pneumococcus type differentiation according to the Neufeld technic is simple, but in order to insure dependable findings, persons doing the work should have had adequate experience in the procedure and should be handling a considerable number of specimens. Thus, it would seem of particular importance to have directors of approved laboratories assume responsibility for all of the pneumococcus type differentiation which is done officially. Laboratories undertaking this type of work should, of course, arrange to have a competent technician available to make the examination in the evening, and on Sundays and holidays. However, since most of the approved laboratories in New York State provide facilities for hospitals, with few exceptions arrangements have probably already been made for emergency service at any time of day or night.

Methods for financing pneumococcus type differentiation will differ in various locali-Where laboratory service has been established, this problem will be simplified. In districts where provision for it has not as yet been made, members of county medical societies will be in the best position to explain the need for such facilities to boards of supervisors and urge them to contract with the most conveniently located approved laboratory for the examination of specimens from pneumonia patients. Usually supervisors will be found ready to sponsor an activity which they are convinced will be for the benefit of the residents of the county they serve. Thus, appropriate action on the part of the county medical societies is of the utmost importance. Until this can be done, the individual patient could be charged for the examination, or, if his financial status is such that his attending physician feels that this would be a distinct hardship, the cost should be met by the welfare commissioner or similar official. While it would be expected that any laboratory would examine a specimen requiring immediate attention without determining the financial status of the patient, it would seem most unfortunate to throw the burden of charity work on the laboratory rather than on the community where the indigent patient lives. The laboratory with its restricted budget can undertake only a limited amount of work for which it does not receive compensation, without jeopardizing the quality of the service offered.

A pamphlet containing a list of laboratories approved by the state commissioner of health and information concerning the examinations undertaken by them is mailed to licensed physicians annually so that they can determine the location of laboratories which can serve them most conveniently. Information in regard to additional laboratory facilities which may become available in the interim can always be secured from the district state health officers who are kept informed whenever certificates of approval are issued.

Health News published by the State Department of Health reported in its February 3, 1936 issue the following report of cooperation by the Nursing profession in the combined effort to reduce mortality from pneumonia.

First Meeting of the Nursing Advisory Committee on Pneumonia

The Nursing Advisory Committee on Pneumonia, appointed by the New York State Nursing Association at the request of the State Department of Health, met in Albany on January 25 to consider ways in which the work of nurses and nursing organizations may be integrated most effectively in the special statewide program for the control of pneumonia. Three major lines of activity were outlined as follows:

1 Educational Activities: It is planned to carry out a comprehensive program for the education of the entire nursing profession with regard to pneumonia, including general information about the newer methods of treatment and emphasizing in particular the nursing aspects. This objective will be attained through meetings and conferences in the fourteen districts of New York State Nurses Association and through emphasis upon pneumonia in training school curriculums. Special instruction of the public in the prevention of pneumonia and the need for early medical care will be accomplished through home visits and the customary talks by public health nurses.

2. Nursing Care: In so far as possible, each organization rendering bedside care will be encouraged to make arrangement for increased nursing care of pneumonia patients who are seriously ill. It is hoped that provision may be made for two or three daily nursing visits and, if necessary, for twenty-four-hour service.

3. Coordination of Activity: The three New York State nursing organizations will work actively with the State Department of Health in promoting and extending community nursing service, including bedside nursing. Cooperation of the lay sections of these organizations will be sought in order to insure community support.

Adequate nursing care of pneumonia cases is a true public responsibility. That there is great need in this field is evident from a recent survey made by the Metropolitan Life Insurance Company which demonstrated that about fifty per cent of cases dying from pneumonia had received no nursing care whatsoever.

Medical News

Dutchess County

NORMAN PLUMMER, physician to French and New York hospitals, gave an illustrated lecture on "The Diagnosis and Treatment of Lobar Pneumonia" at the meeting of the Dutchess County Medical Society at the Amrita club at Poughkeepsie on Γeb 12

Kings County

THE ESTABLISHMENT of a carefully selected library dealing with tuberculosis is planned by the Brooklyn Home for Con-sumptives, 240 Kingston avenue Such a library has been contemplated by the institution for several years as an invaluable aid to the medical profession and the public in the further conquest of tuberculosis would be available to all physicians in the community and would be the only one of its kind in Brooklyn Dr Luther I Warren, medical director, and the medical staff will recommend the books to be purch sed

New York County

MORE THAN TWO HUNDRED graduates of the New York University College of Medicine participated in the Alumni Day program at the College on Feb 22 There were demonstrations in the Physiology, Pathology and X-ray departments in addition to the medical papers. Many physicians from upstate attended Dean John Wyckoff announced that next Alumni Day will take place on Washington's Birthday, Feb 22, 1937

THE CLINICAL SECTION of the New York Diabetes Association seeks to present those aspects of diabetes mellitus which are of interest and value to the medical profession in general. The next meeting of this Section will be held on Friday, March 20, at 8 30 PM, in Room 20 (second floor) at the Academy of Medicine, 2 East 103 Street, New York City The meeting will be under the auspices of the Philadelphia Metabolic Association and will be devoted to "Diabetic Acidosis" The program will be as follows (each paper fifteen minutes)

Chemistry of Diabetic Acidosis Walter G Karr, Ph D, University of Pennsylvania Med ical School

Clinical Aspects of Diabetic Acidosis, Joseph T Beardwood Jr, MD Graduate School of

Medicine University of Pennsylvania

Complications Associated with Diabetic Acidosis, Edward S Dillor M D, Philadelphia General Hospital

Freatment of Diabetic Acidosis, Edward L. Bortz, M.D., Graduate School of Medicine, University of Pennsylvania

Discussion will be opened by H O Mosenthal, M D, and Dana W Atchley, M D

All physicians and medical students are cordially invited to attend this meeting

Queens County

THE WORLD'S FAIR PROJECT Committee of the Medical Society of the County of Queens, Inc , met at breakfast in the Jansen Suite of the Waldorf-Astoria Hotel, New York City, on Sunday morning at ten

o'clock, February 2, 1936

The following were guests of the Medical Society: Drs Morris Fishbein, Alec Thomson, Frederic Sondern, John C Bauer, Thomas McGoldrick, Charles Gordon Heyd, Samuel Kopetzky, David Kaliski, Charles Goodrich, Edward C George Baehr, Milton Goodfriend, Marcus Rothschild, John Wyckoff, William Avery Groat, Frederick Wetherell, Joseph O'Gor-man, Clude Burrett, James M Dobbins John L Rice, Mr Thomas R Gardiner and Mr Robert W Highie

The members of the Medical Society's World's Fair Project Committee present Dr James R Reuling, Chairman, Dis Albert L Voltz, Morris S Bender, A W Victor, Carl Boettiger, Edward A Flem-ming, J Paul McHugh

This meeting was held for the purpose of discussing plans for the proposed World's Fair to be held commencing 1939 in Queens

County

Dr James R Reuling, who presided, stated that his Committee had had several meetings and that the Medical Society of the County of Queens, Inc., was actively interested in the World's Fair, possibly to a greater extent than other medical health organizations in the Greater City, because of the fact that the site of the World's Fair is very close to the County Medical building-one of the main entrances to the grounds being less than one thousand feet from the building and one of the subway stations is directly in front of the Society's building

Dr Reuling stated that it was his conviction that medicine should direct the scientific exhibit, and that if medicine promptly took the proper initiative and enlisted the support of commercial organizations, drug and pharmaceutical houses, insurance companies, public health agencies, medical colleges, sanitary engineers and disposal companies, and all other agencies that might be honestly interested in public health, that it might be possible to build a permanent building as a national institute of hygiene and health.

Dr. Reuling introduced Dr. Fishbein, Editor-in-Chief of the Journal of the American Medical Association, who carried on the

discussion.

Dr. Fishbein laid much stress on the Chairman's hope of having a permanent national health and hygiene museum developed as a part of medicine's contribution to the Fair, and suggested the following factors as being extremely important for a realization of such a plan:

Location: Unless medicine asserts itself, when the architects and engineers are given the project of planning for the Fair, the location allotted to any medical building might not be suitable for its needs. Another important fact concerning the site for the proposed permanent medical building, is a location, which, after the Fair, will still have easy access to transportation facilities.

Censorship: Care must be taken that quack exhibits are not permitted in other portions of the Fair. In general, everything must be

under strict control.

Organization: Immense organization is needed for the protection of the health of the employees of the Fair, as well as the protection of the

health of the people in the City.

Keynote: Keynote is important. Dr. Fishbein suggested stressing preventive and curative medicine, as well as diagnosis. He emphasized the fact that quick action is absolutely necessary in securing leading institutions to exhibit, as budgets have to be planned, exhibits designed and a year allowed for the construction of exhibits.

Dr. Fishbein advised that proper representatives of medical organizations should become acquainted with the many angles involved in such a project, and that the profession ought to arrange with the Trustees of the Exposition to have representation on the Board of Trustees, since the final determination of policy takes place with the Trustees.

A main committee on medical exhibits is also important, as is an executive office for the successful management of finances.

A medical advisory committee should be formed. This should include a representative from medical organizations, societies, industries, schools, and chief hospitals. A committee of this kind met once each month for a year and a half during the Chicago Fair.

Because the Medical Society of the County of Queens is starting early, Dr. Fishbein expressed the opinion that this Exposition should be the greatest exposition

of medicine and should offer the best possibility for a permanent building.

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Mr. Robert W. Higbie, one of the five original incorporators of the World's Fair Committee, was the next speaker. He mentioned that the proposed plans for the Fair indicate that from every standpoint, the entire Fair will be one of beauty. The site for the Fair will be a permanent park which contains two hundred more acres than there are in Central Park, New York City. He added that the Fair will leave behind it a park which every person in the State will be proud of.

He mentioned that, as a member of the Board of Directors of the World's Fair Corporation, he will give every possible cooperation, and that the plan of the Medical Society of the County of Queens, Inc., is feasible and desirable. He added that whether it will be possible to get a permanent building on City grounds, he could not affirm, but he believes it to be entirely possible, especially since the Metropolitan Museum of Art is on City property.

He announced that bills have been before the House of Representatives and Senate for an appropriation of Five Million Dollars and that the Chairman of the Finance Committee for the Fair, together with other members of that Board had been appointed.

He suggested that plans be prepared as quickly as possible, but not too hastily, and that he would be glad to examine the plans and offer whatever assistance he could.

The Chairman then called for expression of opinions from other guests present, and expressed his appreciation to the guests for joining this meeting. He offered the facilities of the Medical Society of the County of Queens, Inc., to organized medicine and associated groups for the preliminary work, in order that the progress, study and science of medicine might be properly represented at this World's Fair, and with the ultimate goal of a permanent National Museum of Hygiene and Health.

Following this meeting, Dr. Reuling, in a letter to the President of the Medical Society of the State of New York, requested that a committee of three be appointed for representation of the State Society in cooperation with committees from the county medical societies; such a committee to make a survey and to take preliminary steps for the proper representation of organized medicine at the George Washington's World's Fair.

Westchester County

THE NEW ROCHELLE MEDICAL SOCIETY has voted to accept a program recom-

mended by a special committee calling for the examination this spring of approximately 1,000 school children for tuberculosis This program is to be undertaken cooperatively with the School Medical Service of New Rochelle, the Health Department, the Westchester Tuberculosis and Public Health Association and the Tuberculosis Committee of the County Medical Society

THE WESTCHESTER COUNTY Medical Society's guest speaker at its meeting on February 18 was Dr Alexander Marble of Boston, who presented a paper on "Practical Points in Treatment of Diabetes in Hospital and Home," with special attention to the newer work which he in association with Dr Elliott P Joslin and others, has been doing with insulin

POSTGRADUATE INSTITUTE TO BE HELD IN PHILADELPHIA

From April 20 to 24, there will be staged in Philadelphia a scientific medical session comparable to the Graduate Fortnight of the New York Academy of Medicine that has been so successful in New York State in recent years

The Philadelphia County Medical Society has arranged through its Postgraduate Institute a similar comprehensive presentation

from outstanding authorities

Philadelphia has for centuries been a center of medicine, and this program is in keeping with its fine tradition of medical teaching It should be remembered that since 1717 when John Kearsley began to instruct young men in the practice of medicine, the reputation of this city as a training ground for physicians has been of the finest To Philadelphia are to be credited, the first hospital, the first medical textbook, and the first clinical medical lecture

The medical traditions of Philadelphia guarantee the excellence of the following

program:

MONDAY, APRIL 20 2 00- 2 25—Physiology of the Circulation Henry C Bazett M D 2 40- 2 55—The Values of the Heart in Action 240-255—The Values of the Heart in Action (Voltoin Pictures) living D Stroud, M D 300-325—The Cinical Picture of Rheimatic Feer in Christies 330-355—The Treatment of Rheimatic Feter Sewart D Polk M D 400-425—Chorca and the Rheimatic Heart Frederic II Leavitt, M D 430-500—Rheimatic Heart Disease in Adults Thomas M McMillan, M D

TUESDAY, APRIL 21 10 00-10 25.-How the Laboratory Can Help the Gen eral Practitioner Abraham Cantarow, M D 10 30-10 55-Prevention of Renal Diseases
Divid M Davis M D

11 00-11 25—Toxemias of Pregnancy
Chifford B Lail, M D
11 30-11 55—Chronic Nephritis Complicating Pregnancy
Hypertensite
Cardio Cascular
Disease

Hypertennic Cardo Cascular Disease
Complicating Pregnatey, Williams M D
12 00-12 25—A Practical Lettor in Pronons in Heart
Disease
12 30-1 00—The Care of the Patient with Cardo
Renal Disease
William P. St. School Cardo

Retal Disease William E Hughes, M D 200-225—Certoin Characteristics of Strepticocci in Relation to Their Infectivity Mudd, M D Stuart Mudd, M D 230-255—Some Chinical Manfestations Freduced by

Strepticocci

Joseph Stokes, Jr. M D 3 00- 3 25-Symptomology of Cardio Vascular Discase Fred J Kalteyer, M D

3 30- 3 55-The Ecolution of Glomerulonephritis
(Lanteen Shides) Edward Weiss, M D
4 00- 4 25-Hyperthy-rodium and Hypothy-rodium un
Kelation to Circulatory Disorders
4 30 5 00-Films Explaining Electrocardiograph,
George C Griffith M D

WEDNISDAY APRIL 22

10 00 10 25—The Pathology of so called Medical Kid ney Disease Baldwin I ucke M D 10 30-10 55—The Pathology of so called Surgical Kidney Disease

Stanley P Reimann, M D –Roentgen Ray Tract Discase 11 00-11 25-

Willis F Manges, M D 11 30-11 55-Radiotherapy in Tumors of the Kidney

and Bladder and Budger George E Plahler, M D George Te Prayler, M D Tract Primarily Renal H Kinney, M D 12 30-12 55—Obstructive Uropathies of Upper Urinary

Tract Primarily Ureteral

2 00- 2 25-Pregnancy Complicated by Heart Disease 2 30- 2 55-Cordio Renal Disease Complicating Police Pathology Margaret C Sturgis M D 3 00- 3 25-Treatment of Syphilis of the Cardio

300-325—Treatment of Sythulis of the Cardio Vascular System
William Egbert Robertson, MD
300-355—Hypertensite Cardio Vascular Disease
400-425—Surgical Treatment of Anguina Pectoris, Including Alcohol Injection, Cervical Sympathectomy and Posterior Root Resection,
430-45—The Possibilities of Surgical Treatment for Hypertension
Trincis Grant, MD

101 appetiention Trancis Grant, M D
445-500—The Present Status of Abdation of the
Thyroid Gland in Certain Forms of Heat
Disease
1 5 Raylin, M D
630 p m —DINNER, Bellevue Stratford Hotel.

Guest Speakers Dr Alexander Colwell, Pittsburgh President Medical Society of the State of Pennsylvania
Dr Frank labey, Director, The Lahey Clinic, Boston

All physicians attending the Institute are invited to be present at the regular meeting of the Philadelphia County Medical Society at 8 30 p m, following the dinner Dr Lahey will deliver the J Chalmers Da Costa Oration on Vanagement of Hilbary Tract Da ease." The annual Strittmatter, Award will also be made Due to the large expected attendance the meeting will be held in the Bellevue Stratford Hotel

THURSDAY, APRIL 23

10 00-10 55-Functional Lidney Tests Leonard G

Leonard G Rowntree, M D
Size of the Heart and Studying Its
Physiology
W Edward Chamberlain, M D
Lotting the Aorta and the Heart
Leonard Consideration of Letions In
Lotting the Aorta and the Heart

Eugene Pendergrass, M D

12.00-12.25-The Cardio-Renal Complications in Prostatic Obstruction

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static Obstruction
Alexander Randall, M.D.

12.30- 1.00—Infections of the Uro-Genital Tract in Relation to Cardio-Vascular Disease William H. McKinney, M.D.

2.00- 2.50—Fundus Lesions of Cardio-Renal Discorders G. E. deSchweinitz, M.D.

3.00- 3.25—A Brief Discussion of the Preventive Aspects of Cardio-Renal Disease Sarah Morris, M.D.

3.30- 3.55—Cardiac Neuroses and Psychoses Joseph C. Yaskin, M.D.

4.00- 4.15—Surgical Treatment of Spasmodic Arterial Affections, Including Raynaud's Disease, Buerger's Disease, Aerocyanosis, etc.

George P. Muller, M.D.

4.20- 4.35—Surgical Treatment of Aneurysms; Peripheral, Aortic, Arteriovenous

4.20- 4.35—Surgical Treatment of Americans, Learning Pheral, Aortic, Arteriovenous
W. W. Babcock, M.D.
4.40- 5.00—Surgical Treatment of Chronic Pericarditis and Valvular Heart Disease
John B. Flick, M.D.

FRIDAY, APRIL 24

10.00-10.25—The Excretion of Water and Nitrogen by the Normal Kidney Alfred N. Richards, Ph.D.

10,30-10.55-Water and Nitrogen Exerction in Renal Insufficiency

Eugene M. Landis, M.D. 11.00-11.25-Nephrosis in Children

Edward L. Bauer. M.D. 11.30-11.55-The Diagnosis and Treatment of Pyclone-

12.00-12.25—Cerebral Vascular Spasms and their Neurological Manifestations

Bernard J. Alpers, M.D.
12.30-1.00-Recent Advances in the Treatment of
Occlusive Peripheral Vascular Disease

Lewis H. Hitzrot, M.D.
2.00-2.25—Angina Pectoris and Coronary Disease
Charles C. Wolferth, M.D.
2.30-2.55—Its Electrocardiographic Study
Francis C. Wood, M.D.
3.00-3.25—The Causes and Treatment of Cerebral

3.00- 3.25—The Causes and Transcon.

Vascular Discase

Clarence A. Patten, M.D.
3.30-3.55—The Modern Use of Digitalis

William D. Stroud, M.D.
4.00- 4.25—The Treatment of Cardio-Vascular Discase other than Digitalis

Alfred Stengel, M.D.

Alfred Stengel, M.D. 4.30-4.55-Prevention of Cardio-Renal Disease Charles L. Brown, M.D.

Medicolegal

LORENZ J. BROSNAN, ESQ.

Counsel, Medical Society of the State of New York

Malpractice-Plaintiff's Burden of Proof

A case very recently decided in favor of a doctor in one of the New England States well-illustrates the sort of attempts that are frequently made by plaintiffs in malpractice cases to make out a cause of action against a physician without competent expert testimony to establish that any failure to follow proper practice by the defendant caused the injuries in question.*

The plaintiff, a janitor by occupation, received certain injuries while handling a bottle which broke, and was treated for those injuries by Dr. C. He later sued Dr. C. charging him in his complaint with having been unskillful and negligent in the treatment of the wound, as a result of which it was claimed he had suffered permanent injuries. The defendant interposed an answer which was in substance a general denial and a defense of contributory negligence. Upon the trial at the conclusion of all the testimony an application for a directed verdict was made on behalf of the defendant, which was granted by the Court, thereby taking the case from the consideration of the jury.

The ruling was carried up to the highest Court of the State by the plaintiff, and it was by that Court affirmed. Upon considering the case, the Appellate Court was bound to review the facts in the most favorable light to the plaintiff, and the facts, necessarily somewhat distorted adversely to the defendant doctor will be detailed herein at some length.

It seems that while the plaintiff was putting a cap on a bottle, it broke in some manner, and an irregular shaped piece of glass about three inches long penetrated his right hand in a slanting position at about the base of the thumb. On that same day (Thursday), the defendant, Dr. C., was called to attend the plaintiff. When he first saw the patient a particle of glass had been pulled from the hand and thrown away. He probed the wound for further foreign substances then and on a later occasion, and told the patient in the presence of his wife that he was sure there was nothing remaining in the wound. The hand was bandaged and later the same day metal clips were applied to the wound, and some sort of salve was used by the doctor. The patient was told it was not necessary to enter a hospital, and that he probably would be back at work the following Monday. When questioned by the patient's wife as to the extent of the injury Dr. C. stated that the wound was possibly two inches deep but entirely a flesh wound. His first examination included ascertaining that the plaintiff could move his index finger to determine that no tendons had been cut. The doctor, according to the testimony, had assured the patient that "just as long as you move your index finger, there is nothing in the hand, everything is all right."

^{*} Bouffard v. Canby, 198 N. E. 253.

On the next two days, Friday and Saturday, the doctor attended the patient at his office. On Friday the hand was sore and swollen, and the patient was unable to move it. He complained of pain in the wound and in the wrist, and was told to soak the member in hot water to relieve the pain. The next day, the complaints were lack of sleep and swelling of the thumb, index and second fingers, and wrist. The doctor reassured him and gave him a prescription for epsom salts to battle the hand, and a prescription to enable him to sleep. The patient was told not to return on Sunday.

Sunday, the patient complained of further pain and swelling up to the ellow. On Monday, he called the doctor to his home, and then complained of "terrible" pain to the shoulder. The next two days the patient was confined to bed most of the time, and the pain and swelling grew increasingly severe, and extended to the cords of his neck. Dr. C. visiting him on Wednesday assured him that he had no cause for worry, and told the wife, "It is not infectious at all, absolutely

good."

After the Wednesday visit by Dr. C., another doctor, B., was called and took over the care of the patient. Dr. B., according to the testimony, found a septic condition existing, and inoculated the patient. He kept him in bed with applications of steam towels and an electric pad of some sort on the hand for forty-eight hours. The swelling gradually subsided and on the twelfth day of his treatment, Dr. B. had an x-ray taken at a hospital which disclosed a forcign substance imbedded in the hand.

Subsequently he was referred to a specialist who some three months after the original injury removed a piece of glass from the thumb, and performed a surgical repair for a cut tendon and severed nerve. Further operative treatment was undergone some four months later, necessitated by a shortening of the tendon previously repaired.

Upon the trial the plaintiff undertook to prove by a doctor not qualified as a surgeon, that surgical treatment should have been resorted to at the outset. The Court excluded such testimony as by a witness not competent to testify, and no further offer of expert testimony was made on behalf of the plaintiff. The defendant introduced expert testimony that his treatment was in accordance with proper practice, and that the infection and the untoward results were due to the original puncture wound.

It was argued on behalf of the plaintiff, that under the circumstances of the case, he was not obliged to introduce expert testimony to make out a case for the jury. It was claimed that the testimony, taken as a

whole, would warrant the jury finding that the defendant doctor had been guilty of omissions in the care of his patient, which had caused damage.

The Court on appeal, however, rejected those arguments, and ruled that upon the evidence the trial Court had properly directed a verdict in favor of the defendant, saying in part:

The defendant's duty to the plaintiff was to use the care and skill of the ordinary practitioner in the community where he practiced his profession. It is only in exceptional cases that a jury instructed by common knowledge and experience may without the aid of expert medical opinion determine whether the conduct of a physician toward a patient is violative of the special duty which the law imposes as a consequence of this particular relationship.

At the trial in the present action four medical experts testified and all agreed that the injury of the type described by the witnesses would make it highly probable that the original punc-ture of glass would cause infection. There was no evidence that the probe used by the defendant was unsterile, or, if so, that it caused or contributed to the infection. There being no medical evidence other than that the infection followed and developed from the punctured wound, the jury could not have inferred that the infection resulted from the use of unsterile appliances. It is the contention of the plaintiff, as we understand it, that the jury could have found that the defendant knew or should have known of the probability of infection or blood poisoning resulting from the wound and could rightly infer that he did not give the plaintiff proper treatment and attention at a time when, from a layman's point of view, the plaintiff was growing worse. The answer to this position is that the uncontradicted medical testimony was to the effect that the general treatment of the plaintiff by the defendant was in accord with accepted practice, as was that of Dr. B. who adopted a different method. Moreover, the jury by the exercise of common knowledge could not have determined whether it was or was not proper medical practice to go into the wound to mend the severed tendon or nerve during the period of infection, or more specifically while the defendant was in charge of the case. In addition it is to be noted that there was medical testimony to the effect that it would have been improper to operate until after the danger of infection was passed.

Accidental Burn During Diathermy Treatment

A young man who was engaged in iron work, had been struck by a falling boom while at work and was referred to a physician. Examination revealed contusions and bruises of his right leg and torn ligaments of his right knee and also contusions and bruises of his left leg. The doctor attended him daily for a period of about three weeks.

At the end of that time his condition was improved but his right knee was somewhat stiff. Therefore, the doctor advised the patient to undergo diathermy treatments which were administered daily for a period of two weeks, without anything unusual happening. The method employed in administering such treatments was that electrodes of molded tin were applied to his knee and buttocks. Finally during one treatment, while the doctor was standing by, without any warning he saw the patient draw up his knee which put a strain on the wire and pulled the contact clip from the electrode. The clip dropped on his bare leg and caused a spark. The doctor immediately shut off the current and found a small burn about onequarter of an inch in diameter where the wire had touched. He dressed the burn with ointment and bandaged it and the patient continued to return to the doctor for diathermy treatments as before, for another week. The patient was then discharged with the burn nearly healed and apparently giving the patient no discomfort.

The patient brought an action against the doctor in which the charge was made that the defendant had negligently administered diathermy treatment to plaintiff causing him severe injuries. A physical examination made at the request of defendant's counsel some months after the occurrence, showed a small permanent scar about the size of a nickel which was entirely superficial. The case was tried before a Judge without a jury and at the conclusion of all the testimony the Court rendered a verdict in favor of the defendant doctor.

Treatment of Infantile Paralysis

A physician engaged in the general practice of medicine in a rural community received a call to attend a nine year old child.

The Alumni Association of the Long Island College of Medicine, Brooklyn, N. Y., will hold their annual Alumni Day activities on Saturday, April 25.

The program of the day will be as follows:

11 A.M.—In Clinical Hall, Polhemus, Long Island College of Medicine, Dr. Adolph G. De Sanctis, '14, Director of Pediatrics at the Post Graduate Hospital, New York City, will

Upon examination he found the child to be feverish with symptoms of grip and gave a prescription to reduce the fever. Later the same day he was again called to attend the child and obvious signs pointed toward infantile paralysis, namely, stiff neck and slight loss of use of arm. He immediately got in touch with the local health authorities and obtained serum which he administered the same evening by an intramuscular injection in the buttocks. He then left and told the parents he would see the child the next morning.

The next morning he went to make his call upon the patient and was informed by the aunt of the child that the parents had taken the child in an ambulance to New York City.

The doctor was also the local health officer and had not given any authorization for the removal of the patient. The doctor subsequently learned that the trip to New York City consumed about three hours and that the child was taken immediately to a contagious disease hospital and died a few minutes after being admitted to the hospital. A Medical Examiner's autopsy was performed upon the body of the child and the cause of death was given upon the death certificate as acute poliomyelitis.

An action was brought against the doctor by the father of the child in which the charge was made that the defendant failed to promptly discover the true condition of the patient, that she was suffering from infantile paralysis, and undertook to treat her for some other malady and that alleged failure was the cause of the child's death.

The action, however, was never placed upon the calendar by the plaintiff's attorney and after some time had elapsed an application was made to the Court to dismiss the complaint for want of prosecution. The motion was granted and judgment entered in favor of the doctor.

read a paper Appendicitis in Children. Dr. Thomas Brennan, '06, and Dr. Carl Laws will discuss the paper.

12:30 P.M.—Luncheon—at which the Alumni are the guests of The Long Island College Hospital. Dr. William Lippold, '05, will speak on *The Lay of the Profession*. The annual Alumni Association meeting will follow.

7:30 P.M.—The annual Alumni Dinner at the Knights of Columbus Club, Prospect Park West.

The mysterious campaign of propaganda against aluminum cooking utensils has led the British Ministry of Health to make exhaustive experiments, as a result of which they announce that they find no convinc-

ing evidence that aluminum in the amounts in which it is likely to be consumed as a result of the use of aluminum utensils has a harmful effect on the ordinary consumer.

Across the Desk

Don't Miss the Big Show

Doctors and their wives who are coming to New York City in April to attend the convention of the State Society are no doubt discussing what "shows" to see To them we might say Do not miss the biggest and best show of all—the city itself. New York is full of theaters, but it is more theatrical than any of them, it is more come than the comedies, more tragic than the tragedies, more spectacular than the spectacles.

It is amazing how few people in New York State-and even in New York Cityhave taken the trouble to explore their own maryelous town Tolks who would not think of going to Washington without seeing the Smithsonian have never seen the Museum of Natural History-much better in many respects The new planetarium is drawing crowds. Folks who would never dream of going to London, Paris, or Italy without visiting the art galleries have never been inside the Metropolitan Museum of Art Those who "oh" and "ah" over London's zoo at Whipsnade don't have time" to see our splendid display in Bronx Park or the smaller but interesting one at the old arsenal in Central Park

No doubt many a reader is already assuming a rather lofty smile, so we shall not go on to advise him to visit the aquarium and try to outstare the fishes, or to spend hours in the magnificent public library reading some sound and informative book. In fact, the state medical program will furnish about all the solid food that can well be assimulated, and we may be very sure that the visiting doctor and his spouse will plan their spare hours in a holiday or picnic spirit, no matter what advice is given them

A Few of the High Spots

Perhaps the most helpful thing to do, then, is to touch briefly on a few of the high spots, so that they can at least plan their sightseeing forays to make every hour count lirst of all, if you will merely step out of the Waldorf-Astoria, after any daylight session, and look up and down Park Avenue, you will see one of the finest and most striking streets in the world, a boulevard that stirs the admiration of foreign visitors

One block east is the Lexington Avenue

subway, which will take you in twenty minutes to Will Street, and you can see where
your money went and ponder on the chances,
if any, of getting it back You can see the
Stock Exchange, the cavernous canyons of
Brondway and Wall Street, Trinity Church,
St Paul's, and, a few steps cast, the old
Chinatown For lunch, Fraunce's Tavern,
with its historic relies and associations, gives
a picturesque touch. It has a fine museum of
Colonial relies, and the waiters wear Colonial costume. Here Washington bade farewell to his officers after the Revolution.

Another jaunt, which no other city in the world can match, can be taken for a dime on the upper deck of a Fifth Avenue bus It starts from the Empire State Building, so it may well be preceded by a visit to the tower (\$110) The view from there on a clear day or night is never to be forgotten Mounting a bus that says "Riverside Drive," we review scores of luxurious shops, pass the classic Public Library, and at 50th Street we have St Patrick's Cathedral on one hand and, on the other, Rockefeller Center, well worth visiting on the return trip Next we pass St Thomas's Church, and, at 57th St swing west past Carnegie Hall, up Broadway, and over to Riverside Drive At 122d St is the towering Riverside Church, of which Dr Harry Emerson Fosdick is pastor. A little further on is Grant's Tomb and in plain view is the gigantic George Washington Bridge, spanning the Hudson Within a few blocks, to the east, are Columbia University and the Cathedral of St John the Divine

Plays and Restaurants

If our sightseers, returning, alight from the bus at Rockefeller Center they should see the court, with fountains, and the "Gardens of the Nations" Then they have the choice of a score of restaurants in Radio City and near-by side streets, where dinner can be had at a pince to suit any taste or purse. The Runbow Room in the R. C. A building has an excellent dinner with unusual program After dinner, a walk of two blocks westward brings us to Times Square, the center of the theater district, where we are greeted by huge electric signs

calling us to entertainments as varied and colorful as the hues of the rainbow. It is a little too soon to try to present any guide to the Broadway plays, as some will undoubtedly end their runs before the convention, but in an early issue we shall mention various ones worth seeing, as well as musical programs that may be on, and interesting sporting events at Madison Square Garden.

Everyone must eat, and mealtimes may well be used to visit the many luxurious and picturesque restaurants that dot the town from Greenwich Village to Harlem. They range from the magnificence of the best hotels to the transplanted bits of China, Japan, Russia, Armenia, Italy, Germany, Sweden, and France, with their many strange but delicious viands. Some that are worth seeing will also be listed here.

Let's Do This Thing Right

THE BRIGHT YOUNG THINKERS who plan to make everybody well and happy by regimenting the doctors like letter-carriers, and sending them from house to house at the beck of politically appointed managers, should think again. If they aim to end all illness, (another "noble purpose") why not do it right? Why not begin at the beginning? Why not remove the causes of illness? Investigation shows, for one thing, that much of the illness in this country is due to underfeeding. Let the Government take over the entire production and distribution of food, and see to it that everyone has plenty.

Inadequate clothing in cold or wet weather is another prolific cause of illness. Think of the millions of wet feet in March and April. Let the Government take over the clothing and boot and shoe industries and give everyone raincoats, rubbers, flannel undershirts, mittens, ear-muffs and everything needed. Bad housing has long been notoriously insalubrious. Washington is lending money for new and better housing, but it is only a nibble. Tear down all the tenements and put up spacious, light, airy structures. Let the treasury pay for it. Fresh air is splendid for health—take over the entire automobile industry and see that every family has one or two cars. Take over the oil industry, too, to provide the gas.

Nonsensical? Why any more so than the plan to take over the profession and practice of medicine? Why is one plan crazy and the other sane? The schemes mentioned

above are impractical because the industries would never allow them and the people would never pay for them, but state medicine, it is believed, can be put over because the doctors are too few and unorganized to resist, and the financial loss will fall on them. Bills providing for socialized medicine are appearing again in the state legislatures this year. Organized resistance can halt them in their tracks.

The only state medical society that showed any favor for socialized medicine last year was California, and it is a pleasure to record that a reversal of its attitude is now apparent. Recently all licensed physicians in that state were polled on the following question: "Shall the California Medical Association endorse any legislative change in the present system of medical practice?" The replies were: Yes, 1162; No, 1947, or nearly two to one against. "California, here she comes." That makes our phalanx solid.

He Just Won't Disappear

THE OLD FAMILY DOCTOR just won't disappear. Long speeches bemoan his going. only to find that he is still with us, and seems likely to stay. He has been compared to the dodo, extinct, done for; he is "a relic of the horse and buggy days" (like the Constitution); he is "a man who knows less and less about more and more." But we can't get along without him, and we might as well own up to it. His ranks, instead of dwindling away as advertised, have increased, said a Midwest medical observer the other day. In fact, asserted Dr. Thomas Kirkwood, President of the Aesculapian Society of the Wabash Valley, in his inaugural address, the general practitioner is doing by far the greater part of the medical work done in this country, and the nation's health and mortality figures show he is doing it well. He will have to continue to do this work for many years to come.

One reason for it is that he is usually the first to see the emergency cases in medicine and surgery. It is he who must recognize such conditions as diabetic coma, uremic convulsions, coronary accidents, eclampsia, intestinal obstruction, and many others that will readily come to mind. He is first on the scene in our dangerous accidents in the home, the factory, the highway. He treats nearly all the contagious diseases; he treats or supervises the treatment of diabetes,

arthritis, and neuritis; he is the first to see cancer and other malignancies, and the very life of the patient hangs upon his ability to recognize them in their early stages. In short, he is the man on the firing line, the man in the forefront of the battle, and he will go out of date only when disease goes out of date.

Handle the "Starter" with Care

THE NEW ELECTRIC "starter" for hearts that have ceased to beat recalls an incident that occurred in Minnesota about forty years ago. The new starter has a gold-plated electric needle that is inserted in the right auricle, we are told, where there is a group of cells that develop a tiny electric current. This current causes the heart muscle to contract periodically. The needle supplies a similar current, and starts the heart going again, after which, of course, it may continue-and may not. Two hearts, it seems, have already been "resurrected" by the device, and are still going, where otherwise they would have been stilled forever. Forty years ago, in a Minnesota mining town, the company doctors were trying to correct the deformed arm of a miner when the patient suddenly died on the operating table. The doctors, after using every means to resuscitate him, passed a needle between the ribs to the heart in a desperate attempt to stimulate it to action. His wife, who saw it, quickly spread the story that "the doctors could not kill him fast enough with the chloroform, and stuck a knife in his heart."

It is needless to say that such stories are exactly the sort that are quickly and firmly believed by a certain type of mind, and a few years later Dr. C. W. More, of Eveleth, Minn., was called to attend a miner who had shot himself in the mouth, the bullet ranging upward through the roof of the mouth and emerging from the frontal region about two inches above the right eye. The man already had a large hole in the back of his head, received on some previous occasion, so perhaps it is not strange that he was soon up and about, as a bullet passing through his head, here or there, evidently found nothing of importance.

What impressed Dr. More, however, as he tells about it in his state medical journal, was that when he entered the room where the wounded man was gracefully draped on two chairs, with his head over the wood-box

to catch any brains or whatever might exude, he noticed twelve stern-faced men,
scated in two rows of six cach, there to
watch him. It was a self-appointed jury, and
as guns were as common in Minnesota then
as they are today, say, in certain circles in
New York City, Dr. More had the comfortable feeling that twelve guns were ready
to bark if he tried any needle tricks. Human
nature is much the same everywhere, and
perhaps it will be just as well if surgeons
who use the electric starter explain to the
wife (or widow) all about it.

An "American Chamber of Horrors"

LAST SPRING a Pennsylvania newspaper accidentally ran side by side a story saying that "Local lady took Natex year ago-had good health even since. Was only medicine this highly respected German resident ever took that brought permanent, lasting relief," and, in the very next column, a notice of her death two days before. A reproduction of the newspaper page with this damning indictment of patent medicine advertising is one of the illustrations in a new book appropriately entitled American Chamber of Horrors published by Farrar and Rinchart. In this sizzling volume Ruth deForest Lamb gathers from official sources the story of the terrific and well-nigh incredible mass-attack that is being made on the health and even the lives of the American people by medicine and food manufacturers whose operations would make a pirate blush. Piecemeal reports of their doings, as told in the bulletins of the Food and Drug Administration. have been given in these pages from time to time, but individual items afford no adequate idea of the extent of this chicanery. A report of conviction and fine, in fact, gives the public the impression that the rascal has been put out of business, when really he blossoms out gaily under a new name to coin more money out of human suffering.

One curse of the depression has been the fact that newspapers, periodicals, and radio circuits have been driven by the financial pinch to accept quack medical and health advertising which they would not otherwise look at. The Copeland Bill has been so shot to pieces that many believe it worthless to meet the situation. The only remedy in sight is to educate the people, and Miss Ruth Lamb's ruthless and unlamblike exposé deserves the widest circulation. More power to her elbow!

Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

The Human Foot. Its Evolution, Physiology and Functional Disorders. By Dudley J. Morton. Octavo of 244 pages, illustrated. New York, Columbia University Press, 1935. Cloth, \$3.00.

An Introduction to Public Health. By Harry S. Mustard, M.D. Octavo of 250 pages. New York, The Macmillan Company, 1935. Cloth, \$2.50.

Regional Anatomy. By J. C. Hayner, M.D. Octavo of 687 pages. Baltimore, William Wood & Company, 1935. Cloth, \$6.00.

Modern Treatment in General Practice. Edited by Cecil P. G. Wakeley, D.Sc. Volume II. Octavo of 382 pages, illustrated. Baltimore, William Wood & Company, 1935. Cloth, \$4.00.

The Obstetric Pelvis. By Herbert Thoms, M.D. Octavo of 115 pages, illustrated. Baltimore, Williams & Wilkins Company, 1935. Cloth, \$2.50.

Injury and Incapacity. With Special Reference to Industrial Insurance. By H. Ernest Griffiths, M.S. Octavo of 270 pages. Baltimore, William Wood & Company, 1935. Cloth, \$5.00.

Fasciae of the Human Body and Their Relations to the Organs They Develop. By Edward Singer, M.D. Quarto of 105 pages, illustrated. Baltimore, Williams & Wilkins Company, 1935. Cloth, \$3.00.

Obstetrical Practice. By Alfred C. Beck, M.D. Quarto of 702 pages, illustrated. Baltimore, Williams & Wilkins Company, 1935. Cloth, \$7.00.

The Bacteriology of Typhoid, Salmonella and Dysentery Infections and Carrier States. By Leon C. Havens, M.D. Edited by Kenneth F. Maxcy, M.D. Octavo of 158 pages. New York, The-Commonwealth Fund, 1935. Cloth, \$1.75.

Russell A. Hibbs Pioneer in Orthopedic Surgery. By George M. Goodwin. Octavo of 136 pages, illustrated. New York, Columbia University Press, 1935. Cloth, \$2.00.

Sir Donald Macalister of Tarbert. By His Wife. Octavo of 392 pages. London, Macmillan and Co. Ltd., 1935. Cloth, 12/6.

The Radiology of Bones and Joints. By James F. Brailsford, M.D. Second edition. Quarto of 571 pages, illustrated. Baltimore, William Wood & Company, 1935. Cloth, \$9.00.

A B C of the Endocrines. By Jennie Gregory, M.S. Quarto of 126 pages, illustrated. Baltimore, Williams & Wilkins Company, 1935. Cloth, \$3.00.

Demonstrations of Physical Signs in Clinical Surgery. By Hamilton Bailey, F.R.C.S. Fifth edition. Octavo of 287 pages, illustrated. Baltimore, William Wood & Company, 1935. Cloth, \$6.50.

The Single Woman and Her Emotional Problems. By Laura Hutton, B.A. Duodecimo of 151 pages. Baltimore, William Wood & Company, 1935. Cloth, \$2.00.

Handbook of Bacteriology. For Students and Practitioners of Medicine. By Joseph W. Bigger, M.D. Fourth edition. Octavo of 458 pages, illustrated. Baltimore, William Wood & Company, 1935. Cloth, \$4.25.

RECEIVED

Wish and Wisdom. By Joseph Jastrow. Octavo of 394 pages, illustrated. New York, D. Appleton-Century Company, 1935. Cloth, \$3.50.

Since his retirement from active academic teaching of Psychology, Dr. Jastrow has written several popular works on the subject with the hope of popularizing the science. In his latest book, Wish and Wisdom, he attempts to discuss in a popular manner, not the orderly, sane, and reasonable acts of human beings, both as individuals as well as of groups, but the unusual, the obviously illogical and unreasonable, though highly dramatic forms of conduct whose motivation is found in wish and not in reality, in the emotional and not in the intellectual, in the erratic and not in the sound aspects of

behavior. The genesis of various cults, Christian Science, Theosophy, and similar movements, as well as other mass behavior reactions as manifested in the strong beliefs in animal magnetism, phrenology, palmistry, numerology, and kindred abberations of human credulity are traced to their roots.

The book is written in a popular vein, for popular consumption. It leaves one with the feeling that when man had been named Homo Sapiens, the one who had given that scientific designation might well have substituted sap for sapiens. In any event, the book may throw light on the understanding of some of the paradoxical human reactions so prevalent in modern life, particularly in the field of mass psychology. Thus the apparent indifference of the world

at large to the raping of civilization and the replacement of Christianity by paganism in Germany, the rise of Dictatorship from the soil rendered crimson by the blood of the youth of humanity that gave its life to make the world safe for Democracy, the Ayrıan and the Nordic myths the many manifesta tions of brutality and cruelty often misked even by the mantle of philanthropy and charity, and the innumerable acts of obvious prejudice and superstititions, could be better understood after reading this book is a strange creature and his behavior is not the result of reason and justice, but generally the product of instinct and emotion, a territory so well explored by Freud and his pupils This book may open the door for many a thinking person, and lead him to observe more critically the acts of his fellow beings by studying more scientific works on the subject of human behavior and its aberrations

IRVING I SANDS

Methods and Materials of Health Education By Jesse F Wilhams, M D & Fannie B Shaw, M A Duodecimo of 331 pages New York, Thomas Nelson and Sons, 1935

This volume discusses methods of health education and includes observations on the nature and psychology of the child. The authors have included material gathered from authoritative sources.

The work has been so arranged as to render the information easily accessible. The render may employ this book as a text as well as a guide in health projects.

SAMUFL ZWERIING

Oedemes et Congestions Pulmonaires By Drs G Caussade & Andre Tardieu Duodecimo of 266 pages illustrated Paris Felix Alcan, 1934 Paper 25 francs

The authors have produced a very interesting work on edemis and congestions of the lung. The first chapters upon the pathology, the careful analyses of the sputum and the edemas from the clinical point of view are very interesting. It is new to the reviewer to think of small areas of pulmonary edema confined to the apices of the lungs as described by the authors. It would seem that the clinical diagnosis would be very difficult.

From an American point of view the work is marred by two features, one a tendency to divide rather simple conditions into many syndromes. For example, edemas are divided into fulminating, acute, subcute and chronic and each one is carefully described. The other feature which makes the comprehension of the work very difficult for a foreigner is the practice of attaching men's names to different clinical conditions.

This is most unfortunate and makes some parts of the work almost impossible to understand

The emphasis of the authors upon careful chemical and cytological examination of the sputim and the helpful information that can be obtained thereby is one of the valuable features of the book

EDWIN P MAYNARD, JR

International Clinics A quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, etc Volume 2, 45th series, 1935 Edited by Louis Hammin, M D Octavo of 327 pages, illustrated Philadelphia, J B Lippincott Company, 1935 Cloth, \$3.00

The first article is on "Some Observations Dealing with Prognosis in Heart Disease", by Gibson of Oxford, England He considers the various factors under the headings of the usual ethological groups Pneumonokomosis is thoroughly presented with a review of the literature and is an excellent article for reference, written by L U Gardner of Saranne. Other articles deal with Headache, Diagnosis of Perforated Peptic Ulcer, especially considering those cases without frank symptoms, Hemolytic Anemia, Anemias of Pregnancy, Renal Lesions caused by the Staphlococcus and Pyuria in Childhood

The subject of Heart Pain of Organic Origin is very interestingly treated by Hamman of Baltimore He gives his reasons for considering all real angina pectoris to be due to coronary artery disease and ischemia of the myocardium, although clinically heart prin may be observed as a result of (1), excessive demand of work put upon the heart in healthy persons, (2), low diastolic pressure in the aorta as may occur in aortic insufficiency, (3), when the hemoglobin of the blood is greatly reduced and therefore its oxygen carrying capacity diminished and (4), when there is obstruction to the coronary arteries at their opening into the aorta or somewhere along their The author believes that leaving aside these exceptions, heart pain is always due to obstruction in the coronary arteries Among diseases which may be confused with coronary occlusion, he considers pericarditis, pulmonary embolism, rupture of the aorta, and interstitual emphysema

W E McCollow

Parenthood Design or Accident? A Manual of Birth-Control By Michael Fielding, M D Duodecimo of 239 priges, illustrated New York. The Vanguard Press, 1935 Cloth se 50

That this book bears a preface by H G Wells is sufficient to arrest anyone's attention, but, that like other books on the

subject, it is dedicated to Margaret Sanger, makes one wonder whether it has anything original to distinguish it from its

predecessors.

A perusal of its contents leads the reviewer to question the need for the book, especially when the market is already flooded with such books in almost the same language and method of presentation. Whatever the merits of or the need for birth-control in selected cases, one may take issue with certain unqualified statements in the text. For example, do the poor breed worthless individuals? Is birth-control conducive to greater happiness and well-being among children?

As to the methods of contraception, every practitioner knows by this time that there is no fixed or uniform procedure. But will the layman, for whom this book is intended, be in a position to know what method to adopt? Like other books on the subject, this newest addition summarizes the teachings of the Birth Control League, and serves as an additional reminder of its continued activities.

Fractures. By Paul B. Magnuson, M.D. Octavo of 466 pages, illustrated. Philadelphia, J. B. Lippincott Company. [c. 1933.] Cloth, \$5.00.

The author has written this text for the man who first sees the fracture and therefore has omitted much descriptive detail of treatment. The indications are clearly given for operative treatment, but description of operative technique is omitted.

Special fractures such as that of the jaw have been omitted from the text and dele-

gated to the oral surgeon.

Throughout the text there is found an admirable attempt to simplify the treatment without standardization. A certain fondness for special splints (not always simple for the

practitioner) is apparent.

The value of the book is greatest as a reference for the man who wishes to know how to manage a fracture, in a manner which has proven satisfactory to the author and without the confusion that always accompanies technical description of various methods of treatment. It is simple, direct, and should prove a valuable book for the general practitioner or the medical student.

S. POTTER BARTLEY

Useful Drugs. By Robert A. Hatcher, M.D., and Cary Eggleston, M.D. Ninth edition. Duodecimo of 203 pages. Chicago, American Medical Association, 1934. Cloth, \$.60.

This small volume, in its ninth edition, presents in a concise form a selected materia medica for medical students and practitioners limiting itself to drugs and preparations of the U.S.P. which should be familiar to all who practice the healing art. It is consistent with rational prescribing, so

neglected in this era, and offers an array of medicaments of known therapeutic value. Obscure and unimportant drugs have been omitted.

This book might well be used as a guide in teaching materia medica and therapeutics and, as the authors suggest, for examinations on these subjects by state licensing boards. Following a standard of this kind would do much to interest students in these subjects and give them a good foundation in the art of prescribing.

The therapeutic index at the end of the book is of distinct value as a guide for the selection of drugs for various disorders. There are also a few pages devoted to a description of the more commonly used pharmaceutic preparations and a tabulation showing the solubility of substances included in the list of useful drugs.

It is a pleasure to recommend this book and its nominal cost makes it available to all interested in rational prescribing.

Frederick Schroeder

The Kidney in Health and Disease. Edited by Hilding Berglund, M.D., and others. Octavo of 754 pages, illustrated. Philadelphia, Lea & Febiger. 1935. Cloth, \$10.00.

This treatise on the kidney is the best that has come to the attention of the reviewer in many a year. It is not written in the conventional text book form, but instead is a series of authoritative papers upon all phases of the kidney in health and disease. Each chapter is written by an authority in that field. It gives the present state of our knowledge and the gaps yet to be filled by further study.

The chapters by Richards and his associates on "The Nature of Glomerular Function" are fascinating. The study of the secretion of individual glomeruli and tubules reads like a fairy tale, but when it is completed will go far towards rounding out our understanding of kidney physiology.

Longcope's chapter on "Infection by Streptococci in Relation to Recovery and Progress in Nephritis" is a very valuable contribution to our knowledge and fits in well with the newer views on hemorrhagic

nephritis.

It is always interesting to read a paper by Franz Volhard, one of the great men in kidney pathology. His treatment of hypertension, dividing the study into two types, the pale hypertension and the red hypertension, is very interesting and offers interesting avenues for further clinical investigation.

As a reference book the work is invaluable. It offers the latest information on every conceivable phase of kidney study and it gives practical assistance in the treatment of diseases of the kidney.

EDWIN P MANNARD TO

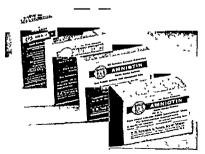
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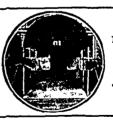
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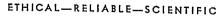
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The Acid Test of a School

The acid test of a school comes when the boy or girl returns home and the father and mother begin to see just what effect the school has had. Has the pupil improved or deteriorated? Some of the schools have permitted the editor of this department to see letters written by parents after sizing up the result of life at school. We may be very sure that parents do not write letters like these unless the boy or girl shows a distinct improvement.

Take this letter-it is spontaneous, sincere:

"Lawrence got home all right. I notice he appears more and more like a man each time he comes home. I think your school is all O. K. He is beginning to see things in the right channel."

Another one stresses a point mentioned more than once on this page:

"I feel he is gaining a great many things that are not in the books, but come by fine associations with teachers and friends."

It has been remarked here also that boys and girls who are cold to parental advice will often welcome the good influences of a fine school. As a father writes to a headmaster:

"You have done something for Jack in six months that I have been trying for six years to accomplish, and I feel mighty grateful."

Parents, in fact, are frequently surprised by the transformation they find. They did not know that the boy "had it in him." It was there, but it took the skill of the trained instructors to bring it out. It is well put by this mother, who wrote to a headmaster:

"May I take, at this time, an opportunity to again say how delighted I am that William is with you? His good work amazes me and I am very grateful to you and your faculty. Of course, he may leave a lot to be desired as a student and personality in your estimation, but you have not known, perhaps, what a struggle school has always been for him. Up to now, it has meant, chiefly, failure in everything, loss of pride and interest, but, the developing of a fine case of inferiority complex. Seeing him emerge from this, you must know, is comforting, to say nothing of William's satisfaction. Of course, his physical development leaves nothing to be desired. Please accept my sincere gratitude.

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Rates for classified advertisements are 10 cents per word for one or two insertions; 3 consecutive insertions 9 cents per word, 6 consecutive insertions 8 cents per word, 12 consecutive insertions 7 cents per word, 24 consecutive insertions 5 cents per word Minimum charge, per insertion, 2250 All classified ads are possible in advance. To atoid delay in publishing REMIT WITH ORDER

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102 Advertisers have taken space in this issue of your Journal. Give them your business when possible.

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Stand in one of the towers of The Waldorf-Astoria and survey the New York that lies within a few blocks of you. Fifth Avenue, humming with smart shoppers. Broadway, gay with its theatres and amusements. Park Avenue, Madison Avenue, and uptown to Central Park. The New York of clubs, art galleries, museums, churches. But the other New York that interests you lies

within The Waldorf, and you are part of it the moment you stop there. People who make news and history meet in the lobbics, the ballrooms, the restaurants. The fashionable world is glimpsed over the rim of your cocktail glass. New York that amuses... New York that matters meets there. Thus, even your briefest Waldorf-Astoria visit is completely stimulating and enjoyable.

Special room rates for Convention Delegates

THE WALDORF ASTORIA

Travel and Hotels

Do Our Doctors Travel?

Steadily increasing reports received almost daily by the Trivel Department of the New York STATE JOURNAL OF MEDICINE, makes it appear that this sec-

tion of your magazine may at least have had some influence in helping doctors to make up their minds where to go, how

to go, and where to stay

Hotels advertising here show an exceptional number of doctors registering, and the same may be said for the steamship and railroad lines although an accurate check has not been possible on the latter

The fine Bermuda hotels and guest houses have reported close to a hundred guests who are doctors, since the beginning of February

In the first week of March, just three hotels reporting from Atlantic City show fifty two doctors spending vacations at that resort

Many physicians have availed themselves of the free and conscientious service offered the Travel Department of the JOHNAL to assist them in every possible way when preparing to travel for business or pleasure

It is not necessary to call in person, a letter will receive the same prompt attention and care

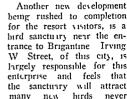
Spring Has Arrived at Atlantic City

Spring-like weather, and the Lenten season, has brought unusually large crowds of visitors to the shore and exceptionally heavy bookings at the hotels which run through the entire six weeks with indications that a greater throng will invade the resort on Palm Sunday and Easter than ever before in its history

Atlantic City's famous fashion parade, to take place on Palm Sunday this year, has grown to such size and importance that the newsreel men, newspaper photographers, fashion experts and "milady" herself, look forward to the debut of spring fashions along the

eight mile boardwalk

Plans for the artificial fishing bank have been reviewed and submitted to Secretary of War Dern Awaiting his decision with interest is the Pennsylvania Reading Seashore Lines With a favorable decision the rail road company plans to compile a fisherman's guide containing information of trains to Atlantic City, necessary fishing equipment, boats available, and all such data helpful to fishermen coming to this resort



before seen in this locality. Mr loseph W Tanum, Delaware Valley Ornithologist, who has been intking weekly trips to Atlantic City for the past five years to study the bird life of the Inlet section, has already identified 206 different species. Care of the wildfowl this winter by beachfront hotels, the South Jersey Sportsmen's League, and Boy Scouts, has attracted hundreds of wild brant and black duck, and has aroused wide-spread interest in the possibilities of an established year-round sanctuary.

A Few Facts about Your Convention Headquarters

The new Waldorf-Astoria, where this year's Annual Meeting will hold sway, is a new home for an old institution. Here many conventions of importance are held yearly for it offers an ideal location and exceptional facilities for large gatherings.

From its opening in 1893, the old Waldorf-Astoria was known for many years as a hotel which, by reason of its remarkable structure, equipment, and service, set entirely new standards. The unique place it has held in American public and social life, has been described over and over again in the public press and elsewhere.

The new Wildorf-Astoria, projected immediately after the close of the old in May, 1929, aroused worldwide interest. It occupies a double block from Park to Lexington Avenues, between 49th and 50th Streets. The building is a fine example of modern American architecture. It is massive and of great height. At the same time it is admirably proportioned and its strong vertical lines are entirely devoid of superfluous ornimentation. The building is open on all sides to light and air.

It is the largest and tallest hotel in the world The building covers 81,337 square feet or 11,862 more than the old Waldorf The old hotel was 198 and a half feet wide by 350 feet long The new is 200 feet 10 inches wide by 405 feet long The old Waldorf-Astoria was of sixteen stories and 225 feet high at its

(Continued on page xxxII)

Public Health and Medicine in Europe!

ANNOUNCING
A Professionalized Tour
Specially Organized for
Members of The New
York Society of
Medicine

Physicians from other states will be admitted, but the tour is open only to physicians and immediate members of their family. The itinerary includes Copenhagen, Stockholm, Helsingfors, Moscow, Kharkov, Kiev, Vienna, Leningrad, Prague and Paris. Arrangements have been concluded in cooperation with the British Medical Association, the Czecho-Slovak Ministry of Health, the Medical Center of Vienna, the Soviet Commissariat of Health and with Scandinavian Medical authorities, and the party will have an unusually extensive opportunity to study the most illustrative hospitals, spas and medical institutions en route. There will also be personal interviews and discussions with foreign medical leaders. The party will sail from New York on July 11th, and will return before September 1st.

• For literature and complete information on this tour, please address Department NY-3. A complete program of special EDUTRAVEL projects in other fields, will also be sent on request.

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Land tours in Europe in conjunction with Amerop Travel Service, Inc. (in U.S.S.R., in cooperation with Intourist, Inc.) highest point. The new building has fortyseven stories and twin towers reaching to a maximum height of 625 feet seven inches.

Although it is the largest hotel in the world, as a structure, the Waldorf-Astoria is not the largest in number of rooms. This is due to the fact that, on an average, rooms are larger than other hotels of comparable size, and the extent and scope of facilities for public and private functions are such as to accommodate up to 4,000 persons.

Mystery Ships and Trains Thrill British Travellers

A modern liner, filled to capacity with passengers not one of whom knows the route or destination of the ship, is the latest innovation of the British Railways. "The Mystery Cruises" of the London & North Eastern Railway, two of which will be run in August, 1936, are based upon a knowledge of the romantic side of the British temperament. Railway officials assume, according to T. R. Dester of the Associated British Railways, that the same adventurous spirit which for centuries has led Englishmen to seek the unknown in all lands and seas, is a fundamental British characteristic still alive and potent in a work-aday twentieth century.

The venue of the cruise and the Continental port at which a call will be made are being kept as a dead secret, and cruisists will not know where their ship is taking them or what they will see—until they get there. A good time is guaranteed and this, together with the novelty of sailing from Harwich under "sealed orders" is expected to attract keen interest and happy speculation.

During the height of "Treasure Hunt" popularity, some genius connected with the British Railways conceived the idea of mystery trips by rail. Some of the most luxurious trains were advertised to leave certain stations and run over unnamed routes to unannounced destinations. No passenger knew, until arrival, whither the train was bound. Such excursions proved highly popular, completely justifying the keen insight into British character of the travel genius who originated them.

The next logical step toward satisfying the Briton's almost insatiable love of mystery and adventure was the travel cruises of the London and North Eastern Railway, which, it is believed, will be even more successful than the mystery trips by train.

(Continued on page xxxiv)

The whole SHIP is yours







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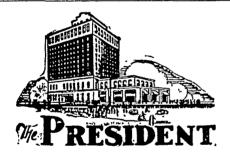
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Beautifully Furnished Housekeeping Apartments

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3

Write for Descriptive Booklet and Rates

S. S. Konigstein to Replace the Ilsenstein in Atlantic Run

Increasing demand for tourist accommodations to Europe during the approaching Spring and Summer season will be met by the Arnold Bernstein Line, substituting the larger and newly renovated S. S. Konigstein, for the company's steamer Ilsenstein, now in service on the Bernstein route between Antwerp, Belgium and New York.

In order to conform with the present schedule of arrivals and departures of the Bernstein Line steamers, the Konigstein will leave Antwerp on her westbound trip on March 28th and will depart on her return trip from New York on April 11th. The Ilsenstein now on the high seas en route here will arrive March 12th and leave for Antwerp two days later. She will then be dry-docked in the shipyard for annual reconditioning and placed in reserve.

The Konigstein is one of the popular tourist carriers of the Atlantic run, and last season carried a cruise party to the Mediterranean which was a most successful voyage, many of the passengers later booking on the vessel for other voyages. Thoroughly renovated and reconditioned, the Konigstein is a real pleasure craft, having wide decks running clear around the ship without obstructions of any kind, and forward beneath the bridge is the largest sports deck on any vessel of her kind in existence. She also carries a big swimming pool, always popular with the traveler during the hot summer days and nights, when swimming is also enjoyed by illumination.

She will have a capacity for 300 passengers, all of whom can be served in the huge dining room forward at one sitting, the dining room being so situated that during the warm days and evenings, the diners will get the full benefit of ocean breezes which sweep across the Konigstein's bow direct into the large windows of the dining room.

Travel Brevities

ON A VISIT to Bermuda, Dr. H. S. Pierson of New York City, was a guest at the St. George Hotel.

Doctors stopping at the Belmont Manor and Golf Club in Bermuda during February were: Dr. & Mrs. Harold Buck and Dr. & Mrs. E. W. Linklater of Canada; Dr. & Mrs. R. S. Cantini and Dr. & Mrs. Harry N. Commando of New Jersey; Dr. Thomas Gallagher, Dr. Thomas J. Glennon, and Dr. & Mrs. G. W. Winchester from New England States; Dr. & Mrs. Geo. A. Richardson of Philadelphia; Dr. & Mrs. W. D. Robson of Ontario; Dr. John

(Continued on page xxxviii)



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It offers all the services of a modern

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Enjoy the extra facilities of a swimming pool, gymnasium, solarium, library, roof garden, squash and badminton courts.

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Castles in Spain

For all their fame, legendary "Castles in Spain" have their limitations. Where could you find one, for instance, with its own golden beach and a shimmering tropic sea at its very doorstep? With whispering palms touched by magic moonlight? With the Miami area's parade of sunshine pastimes and carefree diversions from which to choose your entertainment? Here, at the Pancoast is a "Castle in Spain" that looks the part . . . light, airy, Spanish architecture,

ARTHUR PANCOAST, President

patios and terraces, decorative tile. Traditions of unexcelled cuisine and friendly service add the final touches of practical wellbeing to glamorous vacation days. Select clientele assures you of congenial companions for gay days and tropic nights. After all, "Castles in Spain" are only legendary ... but the Pancoast is actual ... is alive! So much so that it is advisable to write or wire well in advance for reservations.

NORMAN PANCOAST, Manager



Plan to Make Your Convention Visit a Real Vacation Trip

FREE FROM DISTRACTIONS

A private hotel accommodating only a small select clientele, free from the distractions and social obligations of hotel life. A most ideal retreat for those desiring or requiring a restful atmosphere, and the finest of nourishing fresh home-cooked food. Rates reasonable and furnished on application to the manager—P. W. McNeill.

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Nothing formal—just primarily for rest and freedom from conventional rules, yet equal to satisfying the crave for "secial whirl" where



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THE HOTEL BERMUDIANA in Bermuda was host to Dr. A. J. Carrinola and Dr. Maurice E. Connors of Massachusetts; Dr. John F. McCullough and Dr. A. H. Gross of Pennsylvania; Dr. Rolfe Long, Dr. J. L. Byrnes, Dr. H. A. Foster, Dr. W. C. Clayton, Dr. William Klein and Dr. G. P. Snyder, all from New York State; Dr. E. J. Bribach of Kansas; Dr. R. E. Nicodemus, Pennsylvania; Dr. J. E. Mc-Ardle, Indiana; Dr. W. H. Whittlesey, Washington, D. C.; Dr. A. Meyerson, Massachusetts; Dr. F. Morhard, New York; Dr. Leo Myles and Dr. Jos. Sullivan of Massachusetts; Dr. W. E. McConnell, Pennsylvania; Dr. F. S. J. Stoddard, New Jersey; Dr. Henry Hirsch, New York; and Dr. H. H. Bowles, New Jersey.

Down at the Hamilton Hotel in Bermuda the following were enjoying a respite from the rigors of winter: Dr. & Mrs. Nathan H. Fink, Dr. Harry H. Goldner, and Dr. J. W. P. Murphy, of New England; and Dr. G. Marion Stranahan of New York.

SAILING on the "Monarch of Bermuda" and the "Queen of Bermuda" were Dr. E. Styles Potter of New York, Dr. & Mrs. C. H. Jewett from upstate; and Dr. and Mrs. A. J. Carriuolo of Massachusetts.

ARRIVALS at the Hotel Traymore in Atlantic City include Dr. & Mrs. Wilbur Ward, Dr. & Mrs. G. A. Carlucci, Dr. & Mrs. Walter F. Engel, Dr. J. W. Maller, all of New York; Dr. James P. McKelvy, Dr. & Mrs. C. B. Holbrook, Dr. & Mrs. H. L. Bockus, Dr. & Mrs. H. B. Adams, all of Pennsylvania; Dr. & Mrs. W. H. Graham, and Dr. & Mrs. M. S. Meinzer of New Jersey.

A GUEST at the Colton Manor in Atlantic City recently was Dr. Geo. Ross of New York. REGISTERED at the Chalfonte Haddon Hall

(Continued on page xxxix)

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A hotel that radiates the hospitality of Maryland and perpetuates the gastronomic fame of Baltimore. Convenient to Baltimore's leading hospitals and medical centers.

WM. H. PARKER
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in Atlantic City during the past two weeks were the following: From New York-Dr. & Mrs. L. W. Gallagher, Dr. & Mrs. Harold K. Bell, Dr. & Mrs. A. Bonner, Dr. Frank L. Leslie, Dr. & Mrs H. W. Potter, Dr. & Mrs. J. H. McHenry, Dr. & Mrs. Wm. A. Schonfield, Dr. & Mrs. Frederic Schroeder, Dr. & Mrs. A. V. Quick, Dr. J. L. Meader, Dr. & Mrs. R. E. O'Rourke. From New Jersey-Dr. Ward Disbrow, Dr. H. P. Dengler, Dr. I. H. Rosecrans, Dr. D. L. Russell, Dr. II, R. Mutchler, Dr. & Mrs. D. S. Hamilton, Dr. & Mrs C. R. Schramm, Dr. & Mrs. Ralph L. Moore, and Dr. & Mrs. D. Horace Bellis From Pennsylvania-Dr. & Mrs. J. P. Craig, Dr. Walter T. Taggart, Dr. Ida Virginia Reel, Dr. & Mrs. Robert L. Gray, Dr. & Mrs. E B. D Neuhauser, Dr. & Mrs. Geo, C. Griffith, Dr. & Mrs. Genkins, Dr. Leon T. Ashcraft, Dr. A. A. Stevens. From Washington, D. C .--Dr. L. L. Williams, Dr. & Mrs. James A. Cahill, and Dr. G. T. Brown. From Rhode Island-Dr. & Mrs. James H. Prior. From Massachusetts-Dr. & Mrs. Henry A. Christian, From Maryland-Dr. & Mrs. F. Hermann, and Dr. & Mrs L. W. Bullard. From Connecticut-Dr. & Mrs. W. R. Munson From Canada-Dr. Arthur Gibson, Dr. H. Cypihot, and Dr. A. Ecrement,

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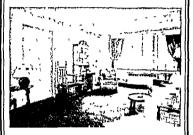
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JOHN J. WOELFLE, Manager

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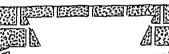
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VOL. 36-NO 7

APRIL 1, 1936

PAGES 469 TO 590

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Polyglandular Disease

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City for Five Year Period Clifton W Henson, MD

Thrombocytopenic Purpura—Following Medication with Sedormid and With Phenobarbital

Ernst P Boas, MD, and L A Erf, MD

Infectious Gastroenteritis

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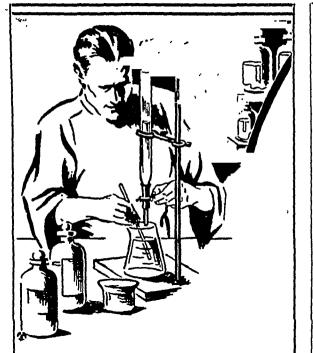
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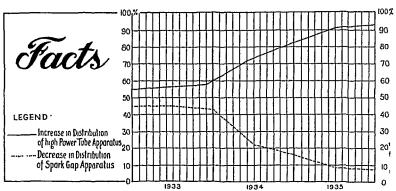
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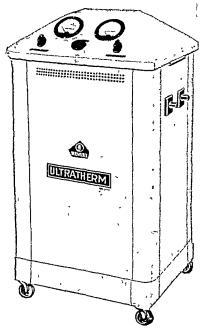
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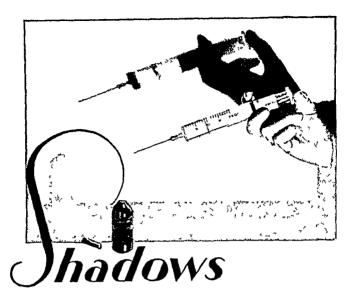
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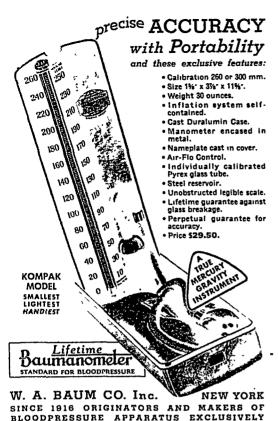
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It's the NEW idea in adhesive tape technique! Scientifically prepared to dissolve the adhesive compound on all types of tapes, plasters, Adhesol permits you to remove the tape quickly and gently—no matter how tender or hairy the surface. Adhesol leaves the skin clean and soft.

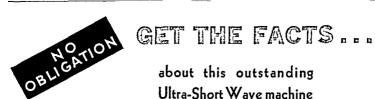
Adhesol is non-irritant and non-explosive. Has a pleasant odor that quickly disappears. Adhesol is economical, going from 6 to 10 times further than any other non-offensive solvent.

Adhesol has a real place in *your* bag. Your patients will thank you for this thoughtful addition to your dressing technique—and you'll save countless minutes of time and trouble.

The Modern....Quick....Gentle Way
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THE ADHESO	L CO., INC.
349 Delaware	Ave., Buffalo, N. Y.
Gentlemen:	Enclosed please find one dollar for a large, convenient size bottle of Adhesol.
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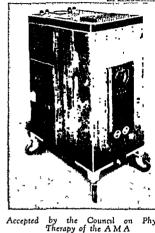
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Adhesol is non-irritant and non-explosive. Has a pleasant odor that quickly disappears. Adhesol is economical, going from 6 to 10 times further than any other non-offensive solvent.

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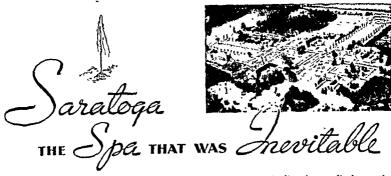
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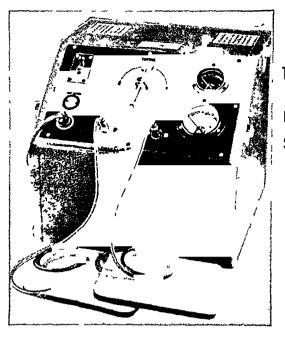
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Output up to 270 watts, Wave Length—15 meters Two large oscillating tubes—Input and Output meters Single dial control—Has cover for Portability—Weight 46 lbs Fuse Protection for tubes—Enough power for Hyperpyrexia—Will cut under water.

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Treatments can be given without the patient removing his clothing. This simplifies your technique and avoids skin burns . Hairy surfaces, uneven contours, etc. offer no difficulty to short wave therapy. Treatment through dressings, even casts is easily accomplished with correspondingly better results in many cases.

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PRODUCES VITAMIN "D" • AIDS CALCIUM AND PHOS-PHOROUS DEFICIENCY • PRODUCES NORMAL ACTINIC THERAPEUTIC EFFECTS

The value of Ultra Violet Ray Radiation has been known to the Medical Profession for a great many years Pioneered by such men as Finsen, Hess, Reyn, Humphries, Hill, Gouvain, etc., this modality has become a distinct specific in a number of ailments It has absolutely proven its value in its successful application in

TWO LAMPS IN ONE - GENERAL and ORIFICIAL

Can Be Operated in Any Position—Burner Does Not Deteriorate Besides the body lamp which is used for general body radiation you have also the orificial unit, most efficient and powerful unit for treatment of orifices yet devised. The orificial applicator is of fused quartz and hollow so that the ultra violet ray energy is tor. The absence of heat enables you on introduce the unit into the orifices and apply it directly on the affected part. This feature alone is worth the price of the whole combination unit.

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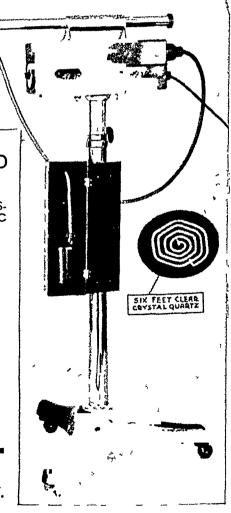
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Complete line of Medical and Hospital Supplies Physio-Therapy • Furniture • Surgical Instruments 204-206 East 23rd St. New York, N.Y.



VEGEX B ITTARES

Autolyzed Brewers Yeast Extract with Salt, Pure Vegetable Flavoring and Iron Salt.

—Potent, Palatable Source OF THE B VITAMINS

Vegex has an average of 45 B₁ and 45 B₂(G) Sherman units per gram; 840 International B₁ units per ounce,

In the B complex (all known B vitamins including the growth factor) 4% of Vegex in a B complex free diet gives good growth and reproduction. The Standard of the United States Public Health Service for dried brewers' yeast is 5% in the diet (Albino rat).

Anemia research has established the potency of Vegex in the extrinsic factor (Castle, Strauss, Wills, Hunter, Vaughan,

Jolliffe and West).

Its value in "alcoholic" polyneuritis was established by Strauss and by Jolliffe and Joffe in the "Relation of Vitamin B(B₃) Intake to Neurological Changes in the Alcohol Addict"

ation of s in the to feed a lilk is the

What Vegex Adds to Milk

A more practical test to guide in human nutrition is to feed a protective food like Vegex in a diet regularly used Milk is the basic diet for children and the protective food for nursing and expectant mothers and for adults, as recommended by the Health Committee of the League of Nations

In photograph I dried whole milk was the sole diet, photograph II the dried whole milk with 5% of Vegex as the sole diet.

Without Veges the red blood cell count was lowered and there was no reproduction With Veges the normal red blood cell count was maintained



Photograph I.



Photograph II.

Palatable and Easily Borne

The meat like flavor of the autolyzed yeast proteins in Vegex—meat free—is very palatable and Vegex, whether with bottle fed babies or in liquid diets of post operative cases, is easily borne.

Samples and literature to physicians on request.

Vitamin Food Co., Inc. 122 Hudson St. Vegex, Incorporated



Seven to ten days are required to remove the calcium phosphate ... six weeks to complete Knox Gelatine.

Analysis Knox Gelatine

Protein (14 amino acids) 85.0-86.0% Calcium Phosphate 1.0-1.25% Fat (less than) 0.1% Moisture 13.0-14.0% Carbohydrate Nil



Knox Gelatine exceeds in quality all U.S.P. standards...no carbohydrates...pH about 6.0...bacteriologically safe.

Of interest in the treatment of muscular dystrophy is the 25% glycine in Knox Gelatine.





CONVALESCENCE and GELATINE U.S.P.

Gelatine brings the convalescent not alone an excellent source of protein and calories, but an improved psychological outlook.

Knox, the pure, sparkling gelatine can be blended as a vehicle to make innumerable dishes...interesting, appetizing, colorful...tempting to eye and palate.

The high percentage of protein in Knox Sparkling Gelatine (over 85%) is promptly digested and utilized for body building and energy.

An uncommonly fine product—Knox Gelatine. For the convalescent, tubercular, high-protein, post-operative, diabetic and infant diet where higher protein content is desirable.

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MEAD'S OLEUM PERCOMORPHUM

Welcomed By Physicians

Rich in Natural Vitamins A and D

Mead's Oleum Percomorphum makes it possible to prescribe natural viramins A and D in the same ratio as they occur in cod liver oils. —but in drops dosage rather than in teaspoonfuls. Consisting of equal volumes of percomorph liver oil and cod liver oil, this product is so potent that it can be given in 1/100 the dosage of cod liver oil. Each gram supplies not less than 60,000 vitamin A units and 8,500 vitamin D units (U. S. P).

Convenient to Prescribe

Realizing that physicians are accustomed to the decimal system, we have blended Mead's Oleum Percomorphum to a potency 100 times that of U. S. P. cod liver oil, which has a vitamin A content of 600 units and a vitamin D content of 85 units. For physicians who prefer cod liver oil we have also prepared Mead's Cod Liver Oil Fortified With Percomorph Liver Oil (5% percomorph liver oil)

having a vitamin content 10 times cod liver oil. * Thus the physician can conveniently prescribe vitamins A and D in any required dosage, in convenient ratio to an acceptable standard cod liver oil.

Greater Economy per Dose

The pioneer work done by Mead Johnson & Company in improving the quality of cod liver oil is too well known to need reiteration. The accompanying chart, however, shows how successfully we have striven, all through the depression, to reduce the cost of vitamins A and D to the patient. All factors concerned in the production and marketing of Mead's Oleum Percomorphum are under our control. We are hopeful that by wholehearted endorsement of these new Mead products, the medical profession will make it possible for us, during the next few years, to make the patient's "vitamin penny" stretch still further.



Bata Istraduced	MEAD'S VITAMINS A-D PRODUCTS; APPROXIMATE COST TO	PATIENT, 1000 D UNITS
1924	MEAD'S COD LIVER OIL (old) 2.31 CEN	TS
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1935	MEAD'S OLEUM PERCOMORPHUM	0.83 CENTS

Mead's Oleum Percomorphum, 50%, is available in 10-drop capsules, 25 in a box, and in 10 and 50 cc. bottles. Mead's Cod Liver Oil Fortified With Percomorph Liver Oil is available in 3 and 16 ox. bottles.

*U.S.P. XI Minimum Standard

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

Mead Johnson & Company, Evansville, Ind., U.S.A.



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KEMP'S

SUN-RAYED PURE TOMATO JUICE

This tomato juice of proved vitamin potency-for a free copy of Steenbeck Report J-36 on Feeding Tests address: THE SUN-RAYED CO. (Division Kemp Bros. Packing Co.)

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Whole Tomato Pulp—Catsup—Tomato Jusce—Tomato Soup
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Squash—Pepper Hulls—Pork and Beans.

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... are carefully prepared to insure absolute 41/2 ounce size purity and requisite food value. They are uniform in texture, correctly seasoned, and protected in enameled lined tins. Accepted by the American Medical Association. We also carry a large assortment of health foods including Battle Creek and Nutradiet.

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ALUMINUM—This instrument lends itself equally to the Pathologist in the Hospital and to the practicing Physician The application and the technic of examination are described in all works of Hematology and Clinical Diagnosis

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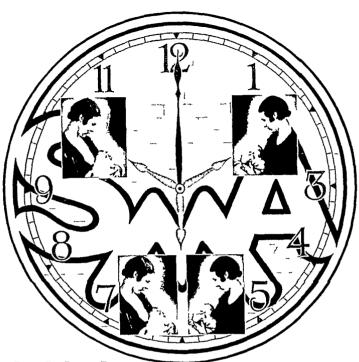
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So Mo Ao for SUPPLEMENTARY Feeding, for COMPLEMENTARY Feeding, and for COMPLETE Feeding

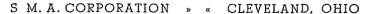
Because SMA, resembles human breast milk in so many * respects S M A, may be used inter

changeably with breast milk either for a supplementary feeding at certain hours, or as a complementary feeding each time after the infant has drained the breasts. or where breast milk is lacking entirely

S M A is made especially for infant feeding It is an adaptation to breast milk, designed

> solely for infant feeding instead of for use in coffee and miscellaneous other ways.

Samples and literature are freely available to physicians upon request.



*S. M. A is a food for infants — derived from tuberculin tested cows milk the fat of which is replaced by animal and vegetable for a far and addition of milk sugar and potassil and diluted according to directions it is fat carbohydrates and ash in che

ested cod liver oil with the an antirachitic food When Ik in percentages of protein and in physical properties





JUICE-O-VEG



"pure, raw vegetable juices for hygienic or therapeutic purposes"

To physicians and dietitians seeking safer and more natural ways of regulating diets, JUICE-O-VEG offers helpful aid in special diets requiring a rich and light source of vitamins and mineral salts. JUICE-O-VEG is a scientifically blended extract of pure juices of selected fresh, raw vegetables and fruits. No adulterants, artificial coloring or preservatives are used.

For sale at

FOLTIS FISCHER RESTAURANTS and RETAIL SHOPS

and

GRISTEDE BROS., Inc.

CANNED FOODS AND THE PUBLIC HEALTH

III. Chemical Preservatives

• Some of our readers have inquired as to whether or not chemical preservatives are used in commercially canned foods. In certain instances this question was inspired by the fact that 'canning compounds' were formerly sold for use in home canning and preserving operations. Such compounds, however, are rarely used by the housewife of today, and never by commercial canners.

We wish to state here that no preserva tites are used in commercially canned foods

Spoilage of food is principally caused by the growth and multiplication in food of microorganisms such as yeasts, molds, or certain types of bacteria. These microorganisms depend upon the food they in habit for their nutrition and their life processes produce changes in the chemical or physical characteristics of food, or both These changes lead us to state that the food has "spoiled"

Like other living organisms, these spoil age microorganisms can grow and multiply in a food only as long as conditions remain favorable for their existence. If any en vironmental factor, such as temperature, moisture or acidity, becomes unfavorable, these spoilage organisms are destroyed, or their development is inhibited.

All methods of food preservation have a common underlying principle, they all alter some factor or factors in the food environment so as to render conditions unfavorable for the growth or development of spoilage organisms in the food

Thus, foods may be preserved by freez ing or refrigeration, which serves to lower the temperature below that optimum for growth of certain spoilage organisms, dried foods keep because the moisture content has been reduced to an unfavorably lockly, certain fermented foods keep be cause of the development of high acidity. All of these methods produce changes in the environment in which the food spoil age organisms must live

Commercial canning is a method of food preservation in which the temperature factor in the environment is raised to a level above that optimum for growth of spoilage microorganisms. Thus, canned foods keep because in their preparation they are subjected to heat processes in hermetically scaled containers. The thermal processes raise the temperature of the foods to those temperatures at which the most resistant spoilage organisms present cannot grow or survive (1)

The hermetic seal insures protection against future infection of the food by such organisms

Thus, commercial canning is a method of food preservation which has for its basis the thermal destruction of spoilage organ isms, no chemical preservatives are needed to insure preservation of the foods, and, consequently, none are used

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) The M crobiology of Foods F W Tanner, Two C ty Pob Co Champs on 11 1932

This is the eleventh in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached We want to make this series valuable to you, and so we ask your help Will you tell us on a post card addressed to the American Can Company, New Yorl, NY, what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Committee on Foods of the American Medical Association



JUICE-O-VE



"pure, ravegetable juices for hygienic or therapeutic purposes"

To physicians and dietitians seeking safer and more natural ways of regulating diets, JUICE-O-VEG offers helpful aid in special diets requiring a rich and light source of vitamins and mineral salts. JUICE-O-VEG is a scientifically blended extract of pure juices of selected fresh, raw vegetables and fruits. No adulterants, artificial coloring or preservatives are used.

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MAPHARSEN

A REFINEMENT OF THE ARSENICAL THERAPY OF SYPHILIS

Mapharsen, developed through co-operative research conducted by two university groups and the research staff of Parke, Davis & Company, is offered to the medical profession as a distinct advance in the arsenical treatment of syphilis

Extensive clinical data have demonstrated Mapharsen to be an efficient antisyphilitic arsenical Healing of lesions and the disappearance of spirochetes occur rapidly, symptomatic improvement and serological response have been most satisfactory

Mapharsen posesses several distinct advantages in the treatment of syphilis

Mapharsen is a practically pure chemical substance

Mapharsen contains 29 per cent arsenic in trivalent form

Mapharsen possesses a relatively constant parasiticidal value

Mapharsen solutions do not become more toxic on standing in the air

Mapharsen does not require neutralization before administration, when dissolved in distilled water it is ready for injection

Mapharsen permits treatment of syphilis with small doses of arsenic The reactions following the use of Mapharsen have on the whole been less severe than those observed after the use of the arsenicals, arsphenarune and nee arsphenarune

Each lot of Mapharsen 1s chemically and biologically assayed before release

A review of the clinical evaluation of Mapharsen and a complete discussion of its use in the treatment of syphilis have been included in our new booklet. We shall be glad to send you a copy on request

> Mapharsen (meta amino-para hydroxy phenylarsine oxide hydrochloride) has been accepted by the Council on Phar macy and Chemistry of the American Medical Association

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DETROIT, MICHIGAN

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LIPIODOL (Lafay) makes possible the application of precise radiologic diagnosis to the



female pelvic viscera, as well as to the bronchial tree. Terms such as "uterosalping ography" and "bronchography" owe their existence largely to this technique.

Lipiodol (Lafay) when indicated, promotes greater accuracy in radiologic diagnosis. It produces precise, clean-cut shadows, facilitating the interpretation and understanding of the lesions present. Moreover, many lesions which otherwise cannot be visualized, may be demonstrated by Lipiodol.

Lipiodol_(Lafay)

Iodized Poppy Seed Oil 40%

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Latest literature sent on request

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Dr. H. E. Dubin Interviews Physicians on Aminophyllin



Learns What They Seek In This Form Of Cardiac Therapy

Dr. H. E. Dubin recently visited and talked with various eminent heart specialists to learn what they sought in the theophylline they used for angina pectoris and other painful heart conditions. The physicians required speedy solubility, rapid action (cardio-stimulant, vasodilator, diuretic), and a wide margin of safety.

DUBIN AMINOPHYLLIN

(Theophylline Ethylenediamine)

Is Favored By Physicians For These Reasons

- 1. Ready Solubility in cold water (in as little as 3 parts of water at 25° C.)

 2. Rapid therapeutic action (in about
- 20 seconds).
- May be taken for long periods without ill effects.
 High theophylline content.

- 5. Quick absorption.
- Olnek absorption.
 Fully meets the U. S. P. and N. N. R. high quality standards.
 Accepted by the American Medical Association, Council of Pharmacy and Chemistry.
 American made from American Instead of the American Instead of the American Instead of the American Instead of the Instead
- materials.

FOR UNEXCELLED THEOPHYLLINE EFFICIENCY, SPECIFY_

DUBIN AMINOPHYLLIN

H. E. DUBIN LABORATORIES, Inc., 202 E. 44th St., New York, N. Y. Established in 1900 @



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A.C.M.I.—Porges Woven Catheters, Filiforms and Bougies—Red RUBBER AND LATEX DRAINS—RETAINING CATHETERS AND UROLOGICAL CATHETER AND CYSTOSCOPIC ACCESSORIES

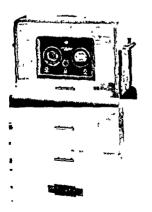
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Ask to see our recent developments in **PERITONEOSCOPES**

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COMPREX SHORT DIATHERMY



ACCEPTED BY A.M.A. COUNCIL ON PHYSICAL THERAPY

Simplified Control

Exceptional Power and Compactness

For all treatment involving Diathermy

For Electrosurgery (including intra-urethral prostatic resection)

Ask your dealer or write us for descriptive booklet and complete literature

COMPREX OSCILLATOR CORPORATION FREDERICK C. WAPPLER, President

450 Whitlock Avenue

NEW YORK, N. Y.

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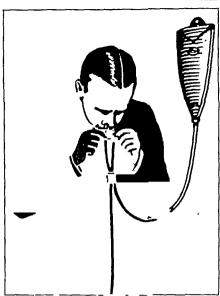
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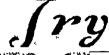
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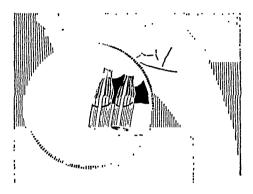
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ALLERGIC MANIFESTATIONS IN THE NERVOUS SYSTEM

FOSTER KENNEDY, M. D., New York City

As the nerves are distributed throughout the body so are they susceptible to changes in the body. No part of the organism lives to itself alone; in the interaction of unit forces within us lies the cause of our greatness and the causes of our diseases and death. In complexity lies mortality.

The chemical individualism of each of us may determine the trend of personality and may likewise be the basic reason of some of our physical disasters. The allergic constitution has rarely been examined for the clue to neural illness. This short paper is written to point observation in this direction and to this end.

Advances in knowledge of infection and the role of bacteria have indeed lessened our interest in internal humoral physiology and dimmed our perception of such processes which often play a vital part in the production of disease symptoms. Many individuals inherit a metabolism easily destabilized and capable of irritating an inherited, unduly sensitive auto-nomic nervous system. The composition of body fluids depends on secure exchange of fluids and body salts; abnormalities of water absorption and retention are now known to cause many symptoms, transient maybe but severe, when in the central nervous system or in the sympathetic and parasympathetic system as well. The circulation of amino acids in tissue fluids may irritate nerve cells, and variation in filtration and osmotic pressure may give rise to localized edemas with disordered function in connective nerve tissue. We may inherit, as a dominant Mendelian characteristic, the tendency to become sensitized or allergic to some foreign substance. A sensitiveness to a particular

substance on the part of each allergic person does not appear to be inherited but is seemingly determined by the chance of environment. Furthermore, a sensitized person may exhibit allergic phenomena only on emotion when the autonomic system is "triggered" and in a reactive state and such individuals may in time exhibit system-habits referable to an unstable metabolism and autonomic mechanism. This shadow border-country where the Saints dwell and in which psyche weds soma is, perhaps, the Never-never Land of Medicine. If we learn its borders clear enough for geography and charts we may slay imagination and lose our humanity. However, War and the stupidity of statesmen will surely ruin civilization in time to avoid such a disaster coming through too much knowledge!

The problem, nevertheless, becomes still more complex in the light of recent work in pharmacology. Otto Loewi has established that the effects of autonomic nerve impulses are transmitted by the peripheral nerve end release of specific chemical stimulants, so that parasympathetic effects are transmitted by release of acetylcholine and sympathetic effects by the release of a body related to adrenalin (Henry Dale). This conception of a chemical complex liberated by specific nerve impulse acting on spontaneous activities of plain muscle and gland cells must be held in mind along with our earlier but still very incomplete knowledge of allergens! By doing so we help ourselves to see the truth of John Hunter's statement that clinical medicine is indeed but a branch of experimental biology. While we can only see as in a glass darkly, it is important that we keep looking at the glass. We must proceed to

the complex and difficult from the apparently simple. Therefore, a plan of suggestive description will now be followed as is here put down: the phenomena of serum sickness, angioneurotic edema, and the neural effects of angioneurotic oedema producing allergic encephalopathy, allergic convulsions and retrobulbar neuritis, allergic headache and migraine, and some considerations regarding the morbid processes of multiple sclerosis.

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I would remind you of some of the neural phenomena of serum sickness. Some years ago I reported before this Association cases of palsy of the circumflex and long thoracic nerves following the administration of tetanus antitoxin and described, also in detail, observations following the use of scarlatinal prophylactic serum on a boy of eleven. This child four days later became covered with urticaria and severely ill with evidences of great meningeal irritation. In three days he became aphasic and had a complete right hemiplegia and hemianopia. The nerve heads were greatly swollen, but their height could not be measured in that the retinae were edematous also. The spinal fluid was under very great pressure and had but fourteen lymphocytes per cm. These circumstances seemed to justify a good prognosis, it being apparent that the meninges were the seat of urticarial swelling similar to that seen in the retinae and skin. Symptoms rapidly improved and an examination four weeks later showed the boy to be free of signs or symptoms of disease.

The signally benign course of these seeming disasters can only be explained by urticarial edema of perineural tissue. There was clearly palsy by compression and not palsy by destruction of nerve parenchyma.

Such happenings may follow the use of therapeutic or prophylactic sera in persons constitutionally sensitive to them. This might be called an artifically induced allergic reaction but similar events occur in individuals prone to what ought to be called allergic angioneurotic edema.

In reporting such conditions at that time¹ they were described as being dramatic and rare. They are certainly dramatic but their rarity is now less evident; and many cases of transient palsies, retrobular neuritis, and maladies of per-

ipheral nerves and spinal roots, together with headache migraine and some cases of epilepsy, have sensitiveness to protein as their etiological bases. Furthermore, transient interference with the functions of parts of the nervous system may coincide with allergic manifestations other than skin edemata. A physician subject to eczema suffered successive attacks of blindness first in one eye and then in the other due to retrobulbar neuritis, one sharp cerebellar seizure (after, as he put it quaintly, "inadvertently crossing the pork-line") and, at another time, a slight right hemiplegia with abnormal plantar reflex and severe thalamic sensations over the right side of the body. The incidence of this disease, as has been said before, may follow the peripheral nerves and nerve roots. Matieu² reported an allergic individual who after crabmeat at noon experienced excessive fatigue and headache at night, was very dizzy and dropped into coma which lasted about twelve hours. He was then agitated and delirious, and vomited. There was a flaccid palsy of the right arm in which there were absent deep reflexes. Giant hives appeared on the body, legs, and arms. By four P. M., though still rather mentally confused, he was able to describe an intense prickling sensation in the affected arm in the hand of which all objective sensibility was absent. Four hours later the mind was clear and some movement was possible in the fingers though pain was still present in the right arm and shoulder. Urticaria was sinking. Full normality of sensation and movement was delayed, however, for a month.

A university undergraduate, a member of a strongly allergic family, was occasionally subject to hives and had had a mild attack in Mexico last Christmas. He returned to college afterward with a severe cold and an infection of both frontal sinuses. Within a few days he felt wellenough except for headache. Then one morning he found he could not jump when doing his morning exercises. A few hours later he noticed his handwriting was poor and feeble in classroom, and that afternoon he could not handle a foil properly. The following morning he had difficulty in getting out of bed and in an hour or so found both feet paralyzed. He was at first thought to have poliomyelitis but Dr. George Draper saw him that day and found temperature and the spinal fluid entirely normal. The hands were then slackly palsied, the arms very weak; the feet had largely recovered power though the thighs were now most weakened. There was no objective sensory loss and no sphincter disturbance. The trunk and belly muscles and diaphragh were very weak, there was a sense of cramp low down in the throat. Breathing was mainly performed by the accessory respiratory muscles. For some days he was in great danger but in this very acute period the motor palsies migrated in the manner already indicated. Total palsy of a group of muscles might last only a few hours and then partly recover, to be replaced by total palsy of another distant group previously but partially involved. The deep reflexes came and went coincidentally with the motor paralyses. He was treated by dehydration and atropine and adrenalin but recovery did not occur till after radical treatment of the sinuses. Here the lesion was undoubtedly periradicular edemas of fluctuating severity and place. It would seem clear that the inherited allergic disposition of this patient responded to the sinus infection, in the same manner as we are familiar with in asthma and urticaria.

Not nearly enough attention has been paid by the neurologist to the question of allergic headache. Eyermann's careful study of sixty-three cases shows that in sixty-nine per cent the headache was improved when certain and specific foods were eaten deliberately. It is noteworthy that in thirty-nine of his forty-four positive cases it was possible to obtain a trust-worthy history of the incidence of allergic manifestations in either the antecedents or the children of the patient.

The most frequent clinical syndrome was headache preceded by nasal blocking of either one or both nasal passages, with colorless nasal discharge followed by, or accompanied by, abdominal discomfort and nausea.

Miller and Raulston have pointed out that migraine and the diseases classed as clinical anaphylaxia have in common periodicity, heredity, temporary disappearance of symptoms after severe infections, cosinophilia and frequent favorable influence by pregnancy. It is impossible to

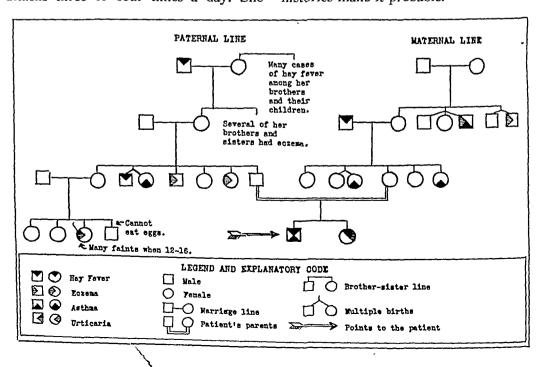
obtain autopsy material by which to substantiate ideas on the pathological processes of headache or of migraine and, as long as we are ignorant of the abnormal tissue changes produced, speculative pathology must stand in the place of knowledge. Hughlings Jackson has said truly that "the use of hypotheses is the method of science. To suppose we can make discoveries by the Baconian method is a delusion. A hypothesis of supposition is not a conclusion, it is only a starting point for methodical observation and experiment, the endeavor being not only to prove it, but to disprove it." The analogy of urticaria and migraine gives one to think in terms of a similar morbid process in the two widely separated ectodermic tissues. Such a local skin dropsy translated to the intracranial cavity would make us visualize focal areas of edema implicating painfully the meninges and especially their foldings and angled reflexions emanating probably from the brain tissue itself. Such localized swellings could form rapidly; the meninges are sensitive to pulling or stretching especially near the blood vessels. It is not necessary here to enlarge on the phenomena of migraine but it would be well to remember they are not confined simply to localized periodic headache lasting several hours and ending in nausea. The most typical attacks are associated with events characteristic of focal cerebro-meningeal irritation or transient injury. The scintillations are on all fours with the phenomena produced by an occipital lobe irritant and often these crude visual discharges are appreciated in the field away from the headache. At times such events are followed by hemianopic defect in the affected field and may be associated with alexia or a reduction in the educated ability to understand written symbols. Numbness and tingling of the contralateral hand and face, rarely of the leg, may be experienced and in such case a passing aphasia is not uncommon. Of course, ophthalmoplegic migraine will come to mind in this regard. Here the paralysis of the extrinsic eye muscles or of the levator muscle of the eyelid may appear in an hour or two and may persist for only a few hours. On the other hand the local paralysis may pass off so slowly as to be still apparent several weeks, or occasionally two or three months, later. In Bellevue Hospital lately was a woman subject to severe, irregularly recurrent right temporal headache associated with partial or, rarely, complete third, fourth, and sixth nerve palsy on the right side with proptosis of the right eye. Now such events are clearly organic; they are in no sense temporary deteriorations on some vaguely functional foundation. They have the appearance of coming from a rapid attack on, or rapid compression by fluid of, nerve tissue with more or less slow recovery of the function impaired thereby. Further, we found in this case of migraine with a sphenoidal fissure syndrome that recovery from symptoms and maintenance of health resulted from an elimination diet and immediate return of pain and local palsies was effected by resumption of the offending protein,

The rôle played by water retention in the brain in epileptics has been stressed by Temple Fay and dehydration has proven a valuable aid to the treatment of the convulsive state. Some years ago I was able to report the case of a child seen in consultation with Dr. Oscar Schloss. This child, a physician's daughter aged two years, had always been subject to attacks of giant urticaria. Six months before I saw her she began to have screaming attacks three or four times a day. She

gave the impression of having severe pain in the head at these times. Shortly after there developed periodic series of clonic convulsions with unconsciousness which were ended by repeated lumbar puncture. For some months the child remained well. Then urticaria reappeared to be followed in four days by screaming attacks and convulsions. Two or three of these associations made us search for a convulsing agent. This was found in milk to which by good fortune she gave a positive skin test. This food was discontinued and since then (1923), has been avoided. There has been no recurrence of either urticaria or epilepsy in the twelve years that have since passed.

Six months ago a boy aged thirteen was brought to me because of epileptic seizures which had appeared several times during the previous eight weeks. Inquiry revealed him as a subject of asthma and hay fever. The family history as regards known allergic sensitiveness is outlined in the accompanying genetic chart.

All his life he had known to avoid milk but lately having gone to boarding school he had become careless. No attacks have occurred since his diet has been controlled. It is yet too early to be sure that the noxious stimulant to the convulsion has been conclusively found but other case histories make it probable.



Crockett's experience in this regard is important In a hospital for tuberculosis in which the patients were treated with tuberculin, he noticed that if the patient also had epilepsy the seizures usually dis-He treated 23 cases with appeared tuberculin He always tried to avoid a reaction. A total of eight or ten injections were given at weekly intervals Eleven nationts were freed from attacks for more than three months. One patient who had 300 major and minor seizures in the month preceding treatment was free for nmeteen months However, the incidence of convulsions in an epileptic varies so m periodicity that more extended thera pentic testings of these ideas must be made The evidence, nevertheless, that many cases of epilepsy constitute a sensitization disease cannot be safely ignored family histories for allergic inheritance must be investigated, sensitization tests made, and elimination diets and dehydration experimented with before we can decently resign ourselves in the care of the idiopathic epileptic to the therapeutic despair of increasing doses of the barbituric series

It would seem doubtful if the possibility of the allergic origin of many cases of retrobulbar neuritis occurs easily to the minds of most doctors of the eye and bram Still it has been my fortune to observe many attacks, coinciding with hives, of acute transient edema of the optic nerve and retina, to watch the onset, the passing, and the structural effects of such events, and to observe, in the same individual phenomena affecting other areas of the central nervous system-in the medulla, in the capsule, in the nerves of hearing, invisible to the eye but visible to the intelligence as being identical with those seen by the ophthalmoscope

Ullman⁶ long ago reported the case of a man subject to transient swellings on the back of the hands, in the pharyinx, and laryngeal mucosa which were followed by symptoms of cerebral pressure, syncope and focal epilepsy. This observer thought that the disappearance of these grave cerebral symptoms in a few drys, the rapid and complete recovery of the patient and the later absence of consulsions after the disappearance of peripheral, circumscribed dropsies mide phusible the assumption of edematous

changes in the brain and its membranes Oppenheim⁴ with his vast clinical perspicacity, quoting this case, surmised that optic nerve disease might possibly develop on this basis but recommended great caution in such an assumption Through Handwerk's⁶ case and mine it has been possible to show how accurate Oppenheim's hypothesis has proven to be The same worker observed the combination of migraine, recurrent oculomotor paralysis and angioneurotic edem⁴

A severe and, I think, important case for the sake of exposition night here be described in detail

A man, aged twenty eight, for five years the subject of swellings varying in size from that of a pea to that of a walnut, oc ensionally becoming superficial but usually deeply seated in the muscles, was admitted for observation to the Neurological Institute If such a swelling occurred near a joint, such as the wrist, for the duration of the swelling-from two to six days-the joint was disabled through stiffness and pain These swellings occurred suddenly, within an hour, they were tender, painful and throbbing and, when the skin was involved, itchy They occurred in the arms and legs and occasionally in and on the trunk muscles Professor Fordyce diagnosed this condition as acute circumscribed edema

Two years after their inception, and during the course of an attack he began to be sleepy, to experience a dull headrche and to notice suddenly that lights seemed foggy and prismatic, in a few hours he discovered that he could no longer see with the right eye, the ball of which was acutely tender and surrounded by an area of pain In about six weeks vision returned to normal

A year later vision was lost totally in the left eye, and completely regained in a fort night The other phenomena were identical with the previous episode Ten months later. the right eye was attacked and recovered I saw him on October 15, when left vision, having disappeared two weeks before, had returned so that he could count fingers with the affected eye at a distance of four feet. Between the attacks of blindness he was well, except for occasional swellings in the muscles and skin The blood chemistry, Wassermann test renal function, calcium content, and basal metabolism were normal The blood pressure never rose above 110 The left pupil was irregular in shape, sluggish to light and on convergence, the left fundus could be seen but hazily by reason of vitreous opacity In a few days the reaction of the pupil became as brisk as that

of its fellow; the fundus was seen clearly, and vision was fully restored. He left the hospital at the end of October in perfect health.

A week later he had another attack of deep swellings in both forearms, then came a stabbing pain in the forehead, so that he screamed continuously for some hours, during which he began to lose vision in both eyes; he became stuporous and a left hemiplegia appeared. Three days later, the stupor had passed but he had no perception of light in either eye; the pupils were irregular and fixed, and no fundal light reflex could be obtained. He only partly recovered from the left hemiplegia in the course of the next four months.

The vitreous body began to clear up in a week, and one began to get fleeting glimpses of the fundal vessels as though through puffs of smoke which rose or moved from side to side in front of the disk, a moving, partly translucent, partly transparent cloud which was clearly being thrown into the vitreous; the nerve heads seemed blurred in outline but, by the time the smokiness of the media had disappeared, the papillae again looked clear-cut. Paracentral scotoma could be seen for two days, after which both fields and vision were again normal.

On December 19, 1923, swellings again appeared in the substance of the anterior tibial muscles; the next day speech seemed to be somewhat thick; two days later, more swellings appeared; the patient was drowsy and had pain over the right eye with decreasing monocular vision. The right pupil began to react sluggishly to light, and the appearance of puffs of smoke or mist was again seen with the ophthalmoscope, increasing in density until the right fundus passed out of sight, when vision also disappeared. On this day a large, red, boggy swelling appeared around the third metacarpophalangeal joint of the left hand. Two days later there was complete aphonia, and the patient was deaf in both ears. He could not hear the tuning-fork on contact. There was much difficulty in swallowing, as the palate was paralyzed, and he could not move the tongue into the left cheek. The blood pressure dropped to 90 systolic. Respiration was labored. The mind remained clear. While vision improved in the right eye it deteriorated in the left, and vitreous opacities appeared on that side as they began to clear on the other. Speech was absent, and alternating incontinence of urine and feces appeared.

On January 17 definite signs of improvement were seen; swallowing was less difficult; slight movement of the palate returned; vision was restored; sphincter control was reasserted. Deafness was still absolute, although Dr. Sowers could find no defect in the ear drums. Ten days later he could talk intelligibly, although with bulbar inflection; he could sit up, and he could hear loud conversation with the left ear. On January 30 he could hear a watch on contact with each ear, and on February 7 hearing was restored to normal. Through all these extraordinary fluctuations of function, only moderate improvement occurred in the left hemiplegia. which behaved in its course as such affections of thrombotic origin usually do. Lumbar puncture was not performed on this patient on account of the risk. Dr. Cook found equivocal sensitization reactions to milk and veal, but the patient had had asthma in childhood, and his mother always had urticaria after eating fish.

And then what is the pathology of multiple sclerosis? Its cause is unknown and no allergic basis for its production can be seen. But its episodes, its intermissions, the curability of its most acute crisis, its attack on the optic nerves, its neglect of sensory paths—all these things greatly resemble the happenings of localized allergic edemas after the central nervous system has come under fire. Further, the recent plaques in the rare autopsies of acute cases are not sclerotic; they are infiltrations by fluid of the nerve tissue surrounding blood vessels-what the agent may be that makes the coats of these vessels permeable by serum we do not yet know, but the morbid process is suggestively similar to those we have had under consideration. However, to leave aside such problems as yet beyond answer, the solutions of many of the epilepsies, migraine and other paroxysmal disorders including, I believe, many of the psychoses, are behind doors the locks of which we pick at. These will one day be opened by the key of biochemistry.

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POLYGLANDULAR DISEASE

George Crile, M.D., Cleveland HENRY TURNER, M.D., Oklahoma City PERRY McCullagh, M.D., Cleveland

We present here four cases of a type similar to that ascribed by Cushing to pituitary basophilism. These patients have been treated by denervation of the adrenal glands.

Many writers on polyglandular disease comment upon the frequent presence in the disease of tumors of the adrenal cortex and appear to ascribe to them an etiological significance. Falta1 states, however, that the presence of an adenoma does not preclude the possibility of nerve influence. In this connection, it is interesting to note that Engelbach2 reported 54 cases in which no tumor was present. Kepler3 of the Mayo Clinic recently reported four typical cases with normal adrenals in two, an enlarged and hyperplastic adrenal in one, and carcinoma of the adrenal in the other. Two of these cases had latent and two marked diabetes. In two cases there was no histologic abnormality of the pituitary gland.

We have assumed that the manifestations of polyglandular disease are due in a large part to hyperactivity of the adrenal glands, an assumption which has been tested by denervating the adrenal glands and division of the major and minor splanchnic nerves on each side. We have performed this procedure in twenty-three cases of polyglandular disease. In some of these cases the operation has been performed too recently to form a final judgment as to the ultimate result, but in every case some if not all of the symptoms were alleviated promptly after the operation.

Case I. The patient, a girl seventeen years of age, was first seen by Dr. Turner on February 28, 1933. She had enjoyed perfect health until four months before she was first seen, when oligomenorrhea developed and hair began to grow on her face, abdomen, and extremities. The breasts began to enlarge, and the face became obese. The cheeks and lips became extremely red. During these four months the hands and feet had become purplish red in color; they were cold, and were constantly wet with perspiration. Appetite and thirst increased greatly, and definite constipation had developed. Headaches

were frequent. The eyes had become more prominent and she complained of nervous ness and of becoming easily fatigued. Dur ing the preceding two months the patient had noticed transient pains in the lower right quadrant. Before this illness the patient had been very brilliant as were other members of her family, a brother having been chosen as an All-American student for his grade. She had led her classes and had been very popular, but during the course of her disease she became dull and somnolent and lost her standing in school. Her energy and endurance became greatly diminished and she became despondent.

When admitted to the Cleveland Clinic May 29, 1933, the patient stated that all of her symptoms had increased. She complained of a gnawing pain in the lower right quadrant, undue fatigue, emotionalism, heat intolerance, general hyper-hidrosis, marked palpitation and tachycar-dia, tremors, and a gain of twenty pounds in weight during the preceding two months. The menses had continued to be very irregular, and the flow was so scant that a

pad was not required.

Physical examination: The temperature was 99.4° F.; pulse rate 120; blood pressure 140/80. The face was very full, round and plethoric with excessive fat about the cheeks, chin, and neck. Abnormal depositions of fat were noticed between the scapulae, on the breasts, and over the abdomen. There was a striking absence of subcutaneous fat over the extremities. The breasts were abnormally large and were covered with atrophic striae and symmetrical, purplish red, atrophic striae were present on the medial surfaces of both thighs (Fig. 1). There was an abnormal prominence of the eyeballs and a coarse tremor of the eyelids when closed. Her expression was dull in spite of her complaints of nervousness and palpitation. The cheeks and chin were covered with rather thick fine hair and there was much facial acne. Hypertrichosis was present on the legs, arms, abdomen, and back. The skin was warm and moist except over the hands and feet which were mottled, cyanotic, and cold. No goiter was present and there were no ocular, cardiac or neurological signs of thyroid disease.

Pelvic examination revealed no abnor-

mality.

ality.

Special examinations and higher than the second se

data: No evidence of pituitary tumor could be demonstrated. The fundi and visual fields were normal, and x-ray examination disclosed a sella turcica which was within normal limits of size, and there was no evidence of erosion. The x-ray examination gave no evidence of demineralization of the skeleton.

The blood findings were interesting. The hemoglobin was 123 per cent (Sahli); erythrocytes 6,220,000; reticulocytes 2 per cent; platelets 111,960; volume index .69; white blood cells 11,750; polymorphonuclears 71 per cent; small lymphocytes 17 per cent; large lymphocytes 10 per cent; transitionals 1 per cent; eosinophiles 1 per cent. The fragility test showed hemolysis beginning at .48; complete at .36. The blood chemistry findings were as follows: In mg. per 100 c.c. of blood, N.P.N. 35; urea 18; uric acid 4.2; creatinin 1.5; calcium 12. The fasting blood sugar was 133 mg. per 100 c.c.; and one and two hours after the ingestion of 100 g. of glucose it was 181 and 154 mg. per 100 c.c. respectively. The basal metabolic rate was minus seven per cent. Blood Wassermann and Kalin tests gave normal findings.

Examination of the urine showed the specific gravity to be 1.020, and there were no abnormal chemical or microscopical findings,

Fig. 1. Photograph of patient (Case I) showing atrophic striae on breasts and thighs.

There was a marked increase in urinary prolan as shown by a modification of the Friedman test. Before the first operation, this test showed 2 plus mature follicles and 3 plus hemorrhagic follicles, corresponding to the findings in pregnancy. One month after the first operation this excess was still present, the test showing 1 plus mature follicles and 3 plus fresh corpora lutea. Eight months after the second operation, however, no prolan was measurable by this method.

At the request of Dr. Cushing, Dr. Turner had sent forty c.c. of heparinized blood plasma to Dr. Irvine H. Page at the Rockefeller Institute, who found it markedly positive for pressor substance. Dr. Page states:

I regret to say that it is not justifiable to claim that this pressor substance is that which is causing hypertension in these cases. It is an extremely complicated situation, so that my feeling, at present, is that one is justified in accepting the finding as being factual, and leaving the interpretation open to future investigation.

Although the patient presented an almost typical picture of Cushing's pituitary basophilism, a diagnosis of polyglandular disease was made, the adrenals, the hypophysis, and the ovaries being involved. In the hope of stabilizing the neuroglandular system, and thus preventing the progress of the polyglandular symptoms, it was decided to denervate the adrenal glands, and a left denervation was performed on May 21. Heart consciousness and a sense of tension, of which the patient had complained, disappeared immediately, and the hands became warm. Three weeks after the denervation the right side of the face was noticeably less puffy than before, the breasts appeared to have stopped increasing in size, and the right one was smaller than the left. It was thought best to have the patient return home for a while to see whether the improvement continued.

During the next thirty days her progress was quite satisfactory. The majority of the vegetative symptoms disappeared; the hands continued to be warm, and the tremor, heart consciousness, inward tenseness, sweating of the palms, etc., did not bother her. Four weeks after returning to her home she experienced severe pains in both lower quadrants one morning, which required morphia for relief. At 7:00 o'clock that evening she had a convulsion, followed by severe vomiting. Later on in the evening she had another convulsion. Following these she complained of extreme tenderness in the left lower quadrant, her temperature rose one to three degrees and fell

to normal within three days. Burning and frequency of urination developed, and a catheterized specimen of urine revealed a large number of pus cells, Bilateral retrograde pyelograms gave negative findings, and there was no evidence of any kidney distortion or displacement. Cystoscopic examination revealed a moderate cystitis and urethritis, which abated under treatment.

The patient returned to the clinic for the second denervation on October 6, 1933. The atrophic striae were still present, the breasts and face were still puffy, and the abdominal fat was markedly increased. The basal metabolic rate this time was minus 13 per cent; blood pressure 110/80; pulse rate 80. A right adrenal denervation was performed. There was a compensatory hypertrophy of the gland, which was the largest we have ever denervated, being twice the normal size. The cortex was drawn into many convolutions. Because of the size of the gland and the abnormal amount of cortical tissue, a partial adrenalectomy was performed also, the inferior pole being excised.

The patient had a rather stormy convalescence, and showed signs of adrenal insufficiency which were controlled by the administration of eschatin. Her progress, subsequently, was excellent. The menses returned five months following the second denervation, and continued to be regular and normal in amount. Following the second denervation, the superfluous hair on the face, abdomen, and extremities completely vanished, and the fat on the face, supracervical region, breasts, and abdomen, disappeared. The skin became normal in color, texture, and temperature, and the

atrophic striae disappeared.

Her progress is indicated by the following extracts from letters from the patient and her home physician within five months after the right denervation.

My menses started functioning February 24 and continued until March 1. My menstruation

TABLE I. COMPARISON OF CONDITION BEFORE AND AFTER OPERATION (CASE I)

Recent gain in weight Lipodystrophy Loss of energy Nervousness Headaches Hands cold and moist

Pulse rate 90 to 120

Before operation Hypertrichosis

One year and Six months after adrenal denervation Normal distribution of hair Loss of excessive weight Normal amount and distribu-Normal No nervousness, patient calm

No headaches Polydipsia and polyuria No polydipsia or polyuria No acne Warm and dry

Friedman test-positive Friedman test-negative Normal

seems to be very natural. I am feeling exceptionally peppy and my appetite is very goodthe superfluous hair on my face and body seems to have vanished.

The following letter was from the family physician, Dr. J. C. Jacobs:

The face has come back to a slender appearance. The pad on the back of the neck and across the upper shoulders is gone. The abdomen is smooth, flat, and no longer puffy. Her skin is moist and normal in texture and the striae on the thighs and breasts seem to be disappearing. The hair on her face, arms, and limbs has entirely gone except for some small amount of hair on the anterior aspect of the lower limbs. Her mental aspect is very good. She takes an interest in reading books and periodicals of different kinds and is able to attend the theatre which she enjoys very much. She is making plans for the next year's school. Also, she tells me she expects to play tennis tomorrow. In fact, she has taken a new lease on life. Her appetite is good, bowels regular, she sleeps well and her strength is increasing from day to day. She is now taking eschatin 2 c.c. morning and evening.

In August, 1934, ten months after the second denervation, the patient wrote:

I have discontinued the use of eschatin and feel no ill-effects; am menstruating every month naturally and I attend many amusements which I enjoy very much. I am planning to re-enter school this fall to graduate and to also make high grades.

In a letter dated one year and five months after the second denervation, she wrote of her last semester's work:

My grades were A in English, B in Com-mercial Law, and A in Home Economics. I didn't carry enough subjects last semester to make high honors so I only made honors. I am taking an extra subject this semester. Business English. Are tennis, swimming, and skating too strenuous exercise for me?

This letter is quoted to indicate the mental and physical vigor then experienced by this patient in contrast to the dull, lethargic. apathetic state when we first saw her.

In the following month, the patient returned to the clinic for observation. Her status is indicated by Tables I and II.

The change in the appearance of this patient is shown in the accompanying photographs, (Fig. 2) but these do not tell the whole story for they cannot portray the

TABLE II. COMPARISON OF GLUCOSE TOLERANCE TESTS BEFORE AND AFTER DENERVATION (CASE I)

Blood sugar periods after ingestion of 100 grams of glucose

57

Fasting & hr. 1 hr. 2 hrs. 3 hrs. 4 hrs. Before denervation. 133 ... 181 154 One year and six months after adrenal denervation. 85 106 106 107 51

change in he personality of the patient, who had been transformed from a heavy, lethargic, listless, stupid individual into a vivacious, alert, normal schoolgirl, who again led her class, and had been voted the most popular girl in the college.

This patient died a few weeks after her last visit to the clinic from an infection which caused an acute epicarditis. Autopsy revealed the presence of an adenoma in the pituitary gland. The pituitary gland ap-

ment of the pituitary gland which evidenced that it was a true case of Cushing's syndrome.

The thyroid gland weighed fifteen grams. The lobes were of uniform consistency and normal in appearance and there was an abundance of colloid tissue. There was no adenoma. The gland exhibited no abnormalities on microscopic examination. The pancreas weighed 100 grams and was also found to be normal on microscopic exami-



Fig. 2. Photographs of patient (Case I) after first adrenal denervation and 1 year and 6 months after second denervation.

peared grossly to be normal but on microscopic examination, the entire anterior portion was found to be occupied by a welllocalized, oval-shaped nodule which was almost entirely basophilic in staining reaction. Between this nodule and the Pars nervosa there was a rather wide zone of histologically normal pituitary tissue. Unstained sections of this pituitary gland were submitted to Dr. Percival Bailey for his opinion. He states, "My interpretation would be chromophobe adenoma with possibly scattered basophilic cells." Dr. Bailey felt that the degeneration which had taken place in the pituitary had caused these cells to stain in much the same way as basophilic cells. Such degeneration was undoubtedly present and due to the very difficult circumstances under which the autopsy was obtained.

It is extremely significant that adrenal denervation completely controlled the symptoms in this case in spite of the involvenation. The right ovary weighed twenty-five grams and measured four by two by one-half cm.; the left ovary weighed five grams and measured four by two by 1.3 cm. Both ovaries contained numerous small follicular cysts. The tunica albuginea was smooth but thickened. Microscopic examination showed a few distended somewhat atrophic and cystic follicles in the cortex of each ovary. The number of primordial follicles was greatly reduced in each. Otherwise, there was no abnormality.

Examination of the adrenals indicated a distinct reduction of the cortical tissue and considerable fibrosis in the surrounding fatty tissue and in the adrenals. Both adrenals were the same in this respect.

Case II. The patient, a women thirty-one years of age, was first seen January 6, 1934. Ten years before she had an attack of pyelitis which was associated with boils. These lasted for about two years. As this condition improved the patient became in-

creasingly nervous and was unable to work, and tachycardia, palpitation and tremors developed. Her physician gave her what she described as an 'ironish colored liquid (possibly a preparation of todine) and as long as she took this she was able to work Five years before we saw her, her basal metabolic rate had been plus sixty per cent and during three months in that year she lost fifty pounds in weight A thyroidectomy was performed elsewhere and while in the hospital, she felt better but after getting up, the tachycardia and pulpitation returned The patient felt the same as before the operation, though she grinted some weight During the eight weeks before we saw her, she had ag un lost weight-fifteen pounds The menstrual periods were irregular and the flow scanty

Physical signs. The pitient was an obese womin weighing 182 pounds—she had weighed over 200. She was very alert and active. The temperature was 98.4° Γ , pulse

rate 120, blood pressure 124/80

The thyroid gland was not palpable but due to dullness to percussion over the upper sternum it was felt that there might be some substernal extension of the gland. This, however, could not be corroborated by x-ray. There was a tremor of the tongue and a tremor of the hands on exertion or tension of the muscles. The skin was warm and moist, and the face and neck were flushed.

The face was fat and hairs, there was a male distribution of hur over the abdomen The hair over the legs and arms was markedly increased. Fat deposits were particularly noticeable in the breasts, on the neck, between the shoulders, and on the abdomen. Pelvic examination revealed no

gross abnormalities

Laboratory data The basal metabolic rates averaged plus fifty eight per cent The red blood cells numbered 4,910 000, white cells 7,600, hemoglobin 91 per cent The Friedman test gave no evidence of urinary prolan and an assay for urinary estrin indicated the presence of less than four rat units per daily output (normal out put approximately 4 to 19 rat units per duent, by Kurzrok method)

The clinical diagnoses were recurrent hyperthyroidism, polyglandular disease, and neurocirculatory asthema. An exploration of the neck was advised to determine the presence and condition of thyroid tissue to be followed by denervation of the adrenal glands if no cause of the symptoms was found in the thyroid gland.

The exploration of the neck was done January 27 The tracheo esophageal grooves were isolated on both sides but no evidence of thyroid tissue could be found nor was any found in the upper mediastinum nor

was there any extension of thyroid material between the trachea and esophagus It was felt, therefore, that the symptoms were due to pituitary and adrenal hyperactivity and a left adrenal denervation and division of the left splanchine major and minor was

performed January 31

As this patient presented marked hirsutism, it was deemed advisable to perform as exploratory laparotomy in order to de termine whether or not an arrhenoblastoma of the ovary was present Several small cysts were noted in the substance of the left ovary and a suspicious area in the middle of the ovary was removed for pathological examination There was one small cyst in the right overy but no suspicious area was observed However, a biopsy was made of the right ovary also The pathologist stated that while there were areas in the left ovary which suggested arrhenoblastoma, whether it was present was questionable

There was improvement in many of the symptoms immediately after the denervation. The bisel metabolic rate fell to minus twenty-two per cent. The prinent lost twenty-two pounds in weight and the pulse.

rate became slower

When she returned for the second de nervation ten months after the first operathe tachycardia, palpitation tremor had recurred, the menses were pregular and the flow had become increasingly scanty The hirsutism was somewhat diminished. The temperature was 99 8° F, pulse rate 128, gradually diminishing in rate during ten preoperative days with rest and the administration of I u ol's solution The blood pressure was 167/85, basal metabolic rate, plus sixty one per cent The Friedman test still showed no prolan The blood iodine was not elevated, being 107 and 134 micrograms per 100 c c (normal, 7 to 14 micrograms) A glucose tolerance test gave the following findings The fisting blood sugar 85 mg per 100 cc, one half, two, three, and four hours after the ingestion of 100 grams of glucose the blood sugar was respectively 154, 163, 147, 112 and 73 mg per 100 cc

The right adrenal gland was denervated on November 22, 1934 The adrenal gland was twice its normal size and was very

TABLE III COMPARISON OF CONDITION BEFORE AND AFTER OPERATION (CASE II)

Weight Nervousness Heart Menstruation Perspiration Before denervation
180-200
Fatreme body tremors
Palpitation — tachy
cardia
Irregular — scanty flow
Abundant

Three months
after second
denervation
151
Nane
Normal
Normal

Normal

similar in appearance to that of the right

adrenal gland in Case I.

It was thought that the gland had undergone compensatory hypertrophy and that the recurrence of the symptoms was due to this hypertrophy. Eight days after the second denervation the basal metabolic rate was plus four per cent.

Three months after the second denervation, the hair had almost entirely disappeared from the face and legs. The patient had lost her nervousness and looked vigorous. She was enjoying a normal social life. Her improvement is shown in Table III.

Case III. The patient, a woman thirty-five years of age, was first seen by Dr. Turner February 28, 1933. At the age of eighteen years she began to gain in weight markedly, and hypertrichosis developed on the upper lip, chin, sternum, breast, lower abdomen, and legs. During the next two years her weight increased fifty pounds. She menstruated only once every seven months and the flow was very scant, and lasted for only one day. She was in college and being embarrassed by her excessive weight—194 pounds—she decided to reduce. On a strict regimen which included a very limited diet and reducing exercises, she lost forty pounds in weight within a period of three months. She then became extremely fatigued, and suffered from headaches

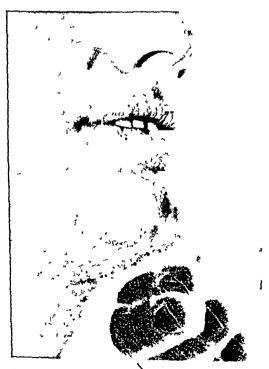


Fig. 3. Photograph of patient (Case III) showing growth of half on face.

which increased in severity, and from nervousness, dyspnea, tachycardia, and palpitation. In 1924 a diagnosis of hyperthyroidism was made and x-ray therapy was applied to the thyroid gland. Between 1924 and 1926 she was hospitalized repeatedly because of attacks of extreme weakness, diplopia, nausea and vomiting, and transient loss of memory.

From 1926 to 1929, under medication with antuitrin and pituitrin, she was able to continue her occupation, that of a teacher, and felt better, but most of the symptoms remained, although they were less severe. During the three years before Dr. Turner saw her she had taken Lugol's solution intermittently, and various kinds of replacement therapy had been administered without beneficial results.

The patient complained of obesity, hypertrichosis, high blood pressure, dyspnea, irregular and scanty menses, exophthalmos, palpitation, headaches, fatigue, nervousness, insomnia, increased thirst and appetite, hyperhidrosis, transient diarrhea, tremor of the hands and feet, dryness of the scalp and hair, and occasional pain in the abdomen. The growth of hair on the face required daily shaving. (Fig. 3.)

Physical examination: The patient was an obese woman, sixty-three inches in height and weighing 179 pounds. There was a generalized hypertrichosis. The temperature was normal; pulse rate 110 to 120; blood pressure 128/80 when at rest in bed, and 163/80 after walking a few steps. The palms and soles were moist; there was a digital tremor; the finger-nails were seamed and brittle. There were numerous white striae over the lower abdomen and thighs. The eyes were prominent, although there was no lid lag, and no definite exophthalmos. The vascularity of the thyroid gland was increased, as indicated by increased pulsation of the superior thyroid artery. The heart sounds were loud. Precordial activity was increased, and there was a soft systolic apical murmur

A unidigital vaginal examination showed a loss of elasticity of the vagina, and that the cervix had a very short anterior lip. The uterus was of normal size. There were no palpable masses in the fornices.

The distribution of fat was like that of lipodystrophy, the neck being relatively free of fat, and the arms and upper chest not obese. The breasts were large and pendulous, and the abdomen was obese and pendulous. The hips were broad and the thighs and legs showed pads of fat extending downward to each side of the tendo achillis. (Fig. 4.)

Significant laboratory data: The basal

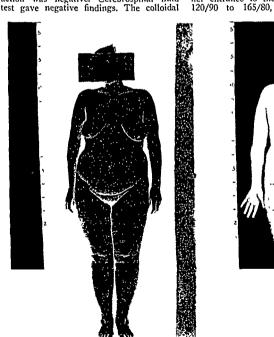
metabolic rates averaged plus 36.5 per cent. The glucose tolerance test gave the following findings: fasting blood sugar, 89 mg. per 100 c.c.; and one-half hours, one hour, two, three, and four hours after the ingestion of 100 grams of glucose, it was respectively 171, 183, 116, 63, and 76 mg. per 100 c.c. Prolan assays made by a modification of the Friedman test showed an excess of prolan—4 plus mature follicles being produced. There was a slight pallor of the optic disks, but examination of the visual field and an x-ray film of the sella turcica revealed no evidence of the pressure of a pituitary tumor.

The erythrocyte count varied between 4,890,000 and 6,260,000. The hemoglobin (Salhi) was 88 to 100 per cent; leukcocytes 8,800; polymorphonuclears 64 per cent; small lymphocytes 36 per cent; reticulocytes 5 per cent. The blood chemistry findings were as follows: In mg. per 100 c.c. of blood, N.P.N. 27; urea 12; uric acid 5.2; creatinin 1.5. The blood Wassermann reaction was negative. Cerebrospinal fluid test gave negative findings. The colloidal

gold curve was zero in all dilutions. Examination of the gastric contents gave the following findings: total acid 40; free acid 13. Urinalysis showed the specific gravity to be 1.022; and there were no abnormatichemical or microscopic findings. Roentgenograms of the chest and spine revealed no pathological condition of the lung fields and no bone changes.

Because of the interesting history and multiplicity of symptoms, and findings sugestive of a pituitaro-adrenal syndrome, Dr. Turner referred the patient to the Cleveland Clinic, where a left adrenal denervation was performed April 23.

Following the operation, the patient improved so notably that she did not wish to have the right adrenal denervation performed. She slept well; was less nervous; had neither palpitation nor heart-consciousness, lost seventeen pounds in weight; and the basal metabolic rate was reduced to minus five per cent. The blood pressure, which had been as high as 270/100, and on her entrance to the hospital ranged from 120/90 to 165/80, became stabilized at



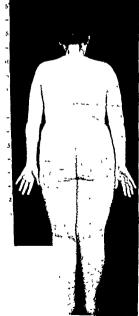


Fig. 4. Photographs of patient (Case III) showing distribution of fat.

120/70-80. The hirsutism practically dis-

appeared.

In the belief that the second denervation might complete her cure, Dr. Turner advised the patient to return. The right denervation was performed August 30, four months after the left denervation.

Three months after the second denervation, the patient wrote that aside from headaches which were less severe, she was feeling "exceedingly well." At that time she was attending classes at the University, making a trip of eighteen miles twice daily on an interurban car.

Six months after the second denervation the hirsutism, except for a small amount on the chin, had disappeared, as had the peculiar fat deposits, and the striae over the abdomen and thighs had disappeared. The basal metabolic rate and the pulse rate were normal. There was no palpitation. The systolic blood pressure was 110. Normal menstrual periods had become established.

When last examined by Dr. Turner, April 12, 1935, two years following the denervations, the patient continued to be free from all the symptoms and signs of which she originally complained, with the exception of headaches, which were much less severe, and occurred less frequently. She had continued to menstruate regularly every twentyeight days; the flow being of two days duration, moderate in amount, and unaccompanied by pain. She had been teaching school regularly during the preceding year, and had noticed no undue fatigue nor nervousness. The basal metabolic rate was plus 16; blood pressure 120/70; pulse rate 90.

Case IV. The patient, a married woman, thirty-three years of age, was first seen September 8, 1933. She complained of an increased growth of hair which she had noted during the preceding three months and of irregular painful menstrual periods. The patient had first menstruated at the age of fifteen years, but had had only two periods each year until she was nineteen years old, when the periods came at fourmonth intervals until she was twenty-one. At one time during this year she took ovarian extract and the following period she flowed profusely, the flow persisting for thirteen days at the end of which period a dilatation and curettage was performed. She then began to take thyroid extract and her menstrual periods came at thirty-day intervals until three months before we saw her, at which time she stopped taking the thyroid extract. Since the menarche she had had dysmenorrhea but this had gradually decreased in severity. During the preceding twelve years she had gained twenty-three pounds in weight (107 to 130 pounds); but during the last thirteen months, she had lost three pounds, and during this period she had noted an increase of hair over her entire body excepting her back. For several years her feet had felt cold. The patient said that she felt well except that she was very nervous. She had tremors which were so severe that sewing was impossible. During the two weeks before we saw her she had been excessively drowsy all day and could sleep as long as fifteen hours at a time. She had occasional severe headaches. She often had fits of uncontrollable crying.

In addition to the symptoms listed above, the patient had a tendency to an elevation of temperature, which was frequently as high as 100 to 102° F. Libido was so increased that it was embarrassing to her. Her face tended to be flushed. She had had generalized itching for several months before the dilatation and curettage, which was stopped for periods of six weeks by the application of the x-ray to the pituitary

gland.

The temperature was 99° F.; pulse rate 104; blood pressure 122/80; blood sugar 128 mg. per 100 c.c. 3½ hours p.c.

Marked general hypertrichosis was present. The pubic hair had the male contour and extended in a line up to the umbilicus. The quality and distribution of hair on the face, body and limbs resembled that of a male. Pelvic examination showed the presence of a solid round tumor of the right ovary one and one-half inches in diameter. The uterus was not enlarged or boggy.

Laboratory tests. The basal metabolic rate was plus two per cent. No evidence of pituitary tumor was demonstrated by examination of the optic fundi, the visual fields or x-ray examination of the sella turcica, all of which gave normal findings. An excess of urinary prolan was demonstrated repeatedly by means of the Friedman test. She excreted an average of 7.2 rat units of estrin per twenty-four hour output of urine (normal output per diem 5-20 units), an assay for urinary androtin showed eight mm. and six mm. comb growth in each of two capons tested (the average for normal men is 10.0 mm.).

The diagnosis was dyspituitarism and ovarian tumor, and the application of x-ray therapy to the pituitary gland was prescribed.

A course of x-ray therapy was given in five seances from September 15 to October 23. During this period the patient had no headaches. When seen October 23, she felt generally improved but no change in the abnormal growth of hair was observed.

She had a menstrual period beginning October 21, which lasted for four days. Preceding this period she had a severe headache which lasted for five days and was followed by a temperature of 100° to 101° F., together with pain in the back. When the patient was seen, nine days after the cessation of the menstrual period, she said that she felt very tired most of the time; her hands were moist; her skin dry; and her nails dry and brittle. Her basal metabolic rate at this time was minus one per cent.

The hypodermic administration of folliculin-menformon was prescribed and one month later the patient was decidedly improved. She was not nervous and had no uncontrollable crying attacks. The menses appeared to be re-established and her last period had been accompanied by but little pain. The hyportrichosis, however, was increasing. She was still taking thyroid extract. The pulse rate was 96; blood pressure 130/70. The administration of menformon and thyroid extract was continued.

In February 1934, five months after her first visit to the clinic, the patient was seen again. At this time she was more nervous. The pulse rate ranged from 84 to 100; the blood pressure was 135/70; basal metabolic rate plus 7 per cent. She weighed only 117 pounds, a loss of thirteen pounds since she was first seen. The right ovary was enlarged and was slightly tender. During her last menstrual period the flow had been very seant, although the preceding two periods had apparently been normal, the flow tending to be profuse. The growth of hair on the abdomen and arms was increasing. The feet were cold.

As the patient had received only temporary benefit from irradiation or medication and since her condition indicated increasing polyglandular dysfunction, denervation of the adrenal glands was advised and the two operations were performed on February 28 and July 26, 1934. One month after the first denervation the patient was much less nervous. The abnormal growth of hair continued, and if anything, was increased. She had gained a little weight. The pulse rate was 87. In general, she said she felt better than she had for years.

When she entered the hospital for the

TABLE IV. COMPARISON OF CONDITION BEFORE AND AFTER OPERATION (CASE IV)

	Bejore denertation	Three months after the second denervation
Heart	Palpitation	None except on exer-
Nrevousness Hirsutism	Marked; tremor Generalized	None; calm Body hair falling out
		especially or limbs Cool and only slightly
	Period lasted three days, flow scanty.	moist
Weight	130 pounds	days, flow more

second denervation, five months after the first operation, there was improvement in all the symptoms with the exception of the hirsutism. Normal menstrual periods had been re-established but the flow was scanty. The temperature was 99.2° F.; pulse rate 100; blood pressure 187/62; basal metabolic rate, plus two per cent. The hypertrichosis was unchanged, but the nervousness, attacks of crying, and dizzy spells had entirely disappeared.

The general improvement three months after the second denervation is expressed in Table IV.

The color was normal—not flushed. Her appearance did not suggest overstimulation; she did not cry. Her menstrual periods were more normal. Libido was normal. The hair was disappearing in patches over the legs and trunk. She was not drowsy. The itching had gone. There was no tremor of the extended hand. The temperature had not been elevated since the operation. The blood pressure was 110/80; temperature 98.8° F.; pulse rate 94.

Comment

The four cases presented here might well be classed as typically representative of either Cushing's pituitary basophilism or the adreno-genital syndrome. Inasmuch as bilateral adrenal denervation resulted in alleviation of the signs and symptoms, the diagnosis of polyglandular disease might be questioned; however, the presence of pituitary, adrenal, thyroid, and gonadal signs and symptoms would tend to substantiate the conclusion pluriglandular involvement present. The fact that similar cases which have come to autopsy show histologic changes in the adrenals without involvement of the pituitary or other glands, and vice versa, should not render our assumption less plausible as it is quite possible that a gland may overfunction secondarily for a time without the occurrence of histologic changes.

In the light of our present knowledge of the very close interrelationship of the glands of internal secretion and their physiological effects upon the organism, it would be difficult, if not impossible, to concede that the numerous physiopathologic changes observed might be due to a monoglandular disease. The symptoms and signs in cases such as these can apparently be accounted for more logically by assuming a stimulation of the thyroid gland and in some cases of the parathy-

roids, adrenals, and gonads. It is difficult, however, to explain on this basis why the urinary estrin is not increased.

It is interesting to note that many of the signs and symptoms observed in this syndrome are closely comparable to those of the menopause—the menstrual suppression; instability of the sympathetic nervous system; neuropsychiatric disturbances; probable adrenal stimulation as evidenced by facial hirsutism, secondary male sex characteristics, and obesity; signs of thyroid stimulation and the increased urinary prolan, observed at times in the climacteric—all of these are almost constantly present in polyglandular disease. Their occurrence in the menopause is ascribed to the removal of ovarian inhibition of the anterior-pituitary gland, resulting in a hyperfunction of the gland and the increased production of its adrenotropic and thyrotropic principles (Mazer).4

In our patients the depressed menstrual cycle became normal following denervation. This suggests that possibly the adrenal may have an inhibitory effect upon the ovary, and that perhaps menopausal ovarian failure is not primary in the ovary, but secondary to an adrenal influence. Theoretically, palliation menopausal symptoms by adrenal denervation is possible. This problem is being investigated.

Our present concept of girdle obesity is that it is more frequently associated with endocrine hyperfunction than with hypofunction. The sex changes, virilism, and vegetative signs might well be of adrenal origin. H. H. Woollard 5 states:

It is certain that sex reversal is caused by an abnormal growth of mesonephric derivatives, which are regularly present and are to be found in the rete ovarii and cortex of the adrenal. Tumors of the rete ovarii are also known. Those with the strongest masculinizing tendencies are rapidly growing masses of fat laden cells called arrhenoblastomas by Meyer.

Strauss and Bauer, in differentiating the suprarenal syndrome from pluriglandular disease and from arrhenoblastomas, state that atrophic striae and other skin manifestations, such as acne and isolated pigmentation, are not observed in the latter. Another differentiating point which we would add is the stronger masculinizing tendency of the arrhenoblastomas with mammary atrophy as against the mammary hypertrophy observed in polyglandular disease.

Tulius Bauer has attempted to dif-"interrenalismus" between ferentiate (suprarenal syndrome) and pituitary basophilism; the close relationship of the two conditions seems apparent. Although a rather prolific literature is developing and satisfactory arguments have been advanced in favor of both basophilic pituitary and adrenal cortical origin of this syndrome, it is our belief that the evidence so far presented is insufficient to establish a monoglandular etiology. We believe that the adrenal probably plays the major rôle, because of the satisfactory results obtained by ourselves and others in alleviation of symptoms by denervation or resection of the adrenals. We conclude that this polyglandular syndrome well-controlled by surgical measures directed toward partial inhibition of adrenal function.

Summary

Four cases presenting the symptoms of pituitary basophilism (Cushing's syndrome), and the adreno-genital syndrome are reported. Bilateral denervation of the adrenals in each case resulted in alleviation of all vegetative symptoms, with disappearance of hirsutism and of obesity. It is suggested that, in view of the multiplicity of signs and symptoms present in these cases which are referable to various ductless glands, the term polyglandular disease, is probably more appropriate, and that, because of the satisfactory results obtained by ourselves and others in the apparently complete alleviation of symptoms by denervation or resection of the adrenals, this is a very ecective method in the treatment of this syndrome,

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A REVIEW OF ESTABLISHED ANESTHETICS With Analysis of Deaths in New York City for Five Year Period

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The pertinent knowledge concerning the physiology, toxicology, morbidity, and mortality of the various anesthetics is here presented in an attempt to determine the safest and most efficient of the anesthetics in general use. It is hoped that this investigation may reduce the hazard from this necessary adjunct to operative procedure.

Ether

The circulatory systems of normal individuals is but little affected by ether unless its administration is prolonged. Muns¹ demonstrated that after about one hour of continuous anesthesia, a marked and progressive arterial dilatation takes place. The effect of the anesthetic upon an organism suffering from shock is however different. As was determined by Cannon² in 1919, who showed that etherization of a shocked animal to the point of disappearance of the corneal reflex, reduced the blood pressure from sixty-five mm. to thirty mm. of mercury.

The effect of ether on the gastrointestinal tract is distinctly unfavorable. The experiments of Miller³ indicate that during ether anesthesia peristaltic action is abolished and muscular tone is diminished, that recovery is slow, and normal activity is not resumed until several hours after the administration of the drug

has been discontinued.

Many undesirable changes are produced in the blood by ether. They are an increase in its solid elements,* reduction of its oxygen carrying power, ten to twenty-five per cent,* reduction of coagulation time,* increase of icteric index and sedimentation rate of red blood corpuscles, reduction of alkali reserve, and an increase of acetone bodies, sugar, lactic acid, uric acid, and inorganic phosphates.

Experiments made by Stander⁷ upon dogs demonstrated that degenerative changes occur in the epithelium of the convoluted tubules of the kidneys, marked fatty changes always occur in the central

portion of the liver lobules and sometimes throughout the whole lobules following the administration of ether. Whipple and Speed⁸ in 1915 found the pthalein output lowered after the administration of ether.

The changes produced in the various systems by ether lead one to anticipate some morbidity following its use, and this substantiated by clinical reports. Lundy reported parallel series of 600 cases, one receiving ether and the other ethylene. Bronchitis occurred in 2.5 per cent of the first group and in .6 per cent of the second; bronchopneumonia occurred in 3.6 per cent of the first and 1.5 per cent of the other. Lundy felt that ether was at least partially responsible for six of the deaths of the first group. Finsterer observes five deaths from gastrointestinal atony in 610 operations under ether narcosis, three of which were demonstrated at autopsy.

The concentration of the blood and reduction of coagulation time already noted would seem to favor formation of thrombi, and it is significant that the occurrence of embolism has been observed to be more frequent following ether anesthesia than following the other types. Nordmann¹¹ reported a rise in frequency of embolism following operations of from 1.4 per cent to 4.4 per cent when ether narcosis replaced chloroform in his clinic, and Finsterer recently stated that in his experience the frequency of embolism was .98 per cent following ether as opposed to .24 per cent following local.

These are only a few of the many clinical reports which indicate that ether is followed by morbidity and a delayed mortality. The immediate mortality rate of ether is reported low. Keen¹² compiled records of 262,002 ether anesthesias with thirty-four deaths, a rate of one per 7,706, and McGrath¹² reported 49,057 ether administrations with no deaths. However, the statistics presented later indicate that the rate is higher than is usually reported.

Nitrous Oxide

The functions of the respiratory and circulatory systems, excepting the blood itself, are entirely unaffected by nitrous oxide, any changes occurring in them during anesthesia being always the result of

asphyxia.

If cyanosis develops the peristaltic waves of the intestine may be either tumultuous or abolished. (Sollman)¹⁴. Nitrous oxide causes changes in the blood similar to those produced by ether, with two exceptions; no concentration of the blood nor reduction of the coagulation time has been noted. The gas produces pathology in the liver and kidneys identical with that caused by ether.

As one would expect, and as clinical evidence demonstrates, the venous congestion produced by nitrous oxide anesthesia causes disturbances in the circulatory system. Miller¹⁵ has observed the postoperative course of 1493 patients who received nitrous oxide-oxygen, and 3501 who received ether and found that coronary embolism occurred twice as frequently after gas-oxygen, cerebral embolism and cerebral hemorrhage about seven times as often, and pulmonary embolism about one half times more following nitrous oxide-oxygen anesthesia.

The available statistics would seem to indicate that the administration of nitrous oxide gas is a safe procedure. Teter¹⁶ reported 23,952 personal administrations with but one death. Gwathmey17 estimated the mortality as about one in twenty thousand. Sollman¹⁴ stated that at the time of publication of his volume (1922) seventeen deaths had been reported, a mortality rate of one per five million. However, Baldwin¹⁸ in 1923 reported that twenty deaths occurred from this agent in Columbus, Ohio, within a few years, causing him to give up this anesthesia for patients requiring deep anesthesia, and later the death of a hearty young man occurring in Detroit caused him to give it up altogether. He stated that fatalities are perhaps fairly numerous, but reliable statistics are not avail-Evans in 193210 reiterated this warning, stating that the gas is particularly dangerous when used by the untrained. This would seem reasonable upon consideration of the necessity for the correct proportion of oxygen and the fact that the signs of deep anesthesia and approaching consciousness resemble each other so closely. Statements presented later confirm this statement.

Spinal Anesthesia

Spinal anaesthesia always causes partial vasomotor paralysis and this causes reduction in oxygenation of the blood by diminishing respiration if the solution rises above the tenth dorsal segment, this mechanism sometimes resulting in death. Seevers and Waters²⁰ believed that the occasional cessation of respiration during spinal anesthesia is due to insufficient oxygenation of the medullary center as a result of the mechanism described, and that cardiac dilatation accompanies it for the same reason.

It would seem that a prolonged reduction in blood pressure, with relative anoxemia, might produce degenerative changes in any or all organs in the body, which may be an explanation of the occasional death following spinal anesthesia, characterized by increasing listlessness and exhaustion. Observations of McKittrick, McClure, and Sweet²¹ support this contention. They found that twenty-five per cent of forty-five patients whose blood pressure dropped fifty per cent during anesthesia did not return to preoperative level until twenty hours after the injection.

The possible occurrence of trauma to the central nervous system, the possibility of atelectasis and of tissue degeneration would lead one to assume that morbidity would result from the use of this form of anesthesia; and clinical observations of its occurrence are becoming more frequent. Lindemuller²² recently stated that few reports of spinal anesthesia give clinical observations of the neurologic complications and necropsy observations, and then goes on to report his observations on eleven cases, seven of which developed neurological symptoms, and two changes in the spinal cord which he believed contributed to death.

McKittrick, McClure, and Sweet²¹ also reported that during the year in which spinal anesthesia was used in the East Surgical service at the Massachusetts General Hospital, there was an apparent increase in the number of postoperative pulmonary complications over the preced-

ing year, when ether was used Brown and Debenhames found postoperative pulmonary complications 4.29 times more often when subarchnoid anesthesia was used than when inhalation anesthesia was used in a series of 812 cases.

The mortality resulting from spinal anesthesia has been variously estimated Rygh and Bessessen21 in 1928 reviewed 250 895 cases. The mortality in this series was one per 3 345 mjections Babcocka stated that twelve patients died as a result of spinal anesthesia in six thousand in jections previous to 1914, but that in the ten years following no death occurred in approximately six thousand injections due to more careful selection of cases and Adam⁷⁶ recently better prophylaxis stated that he believed the mortality to be one per five hundred cases and that therefore he had discontinued the use of this form of anesthesia. It would seem, therefore, that in careful hands spinal anesthesia is attended by little risk but that when administered by those relatively mexperienced in its use, the risk is greater than that following ether or ethylene and probably nitrous oxide

Local and Regional Anesthesia

Several drugs are used to induce local anesthesia, but it is generally conceded that novocain is the least toxic and consequently safest. The physiological effects of novocain are irrelevant to this discussion. There is no evidence to indicate that novocain causes any damage to the various systems of the body, but small doses in susceptible individuals and large doses in normal individuals occasionally cause severe toxic symptoms and even death. The onset of convulsions indicates toxemia and usually death unless treatment is prompt and adequate.

There is little morbidity following the use of local anesthesia Finsterer observed no deaths from intestinal atony, following 4562 operations under local anesthesia, and the mortality from pneumonia was 24 per cent following the same series, whereas it was 1 31 per cent following 610 operations under general narcosis

It is believed that the mortality rate following the use of local anesthesia for abdominal operations is relatively low, but it is difficult to obtain a fair comparison with that of other forms of anesthesia

because of the more frequent use of local anesthesia in cases considered poor risks and often moribund. De Takats²⁷ reviewed 2,745 cases of splanching anesthesia and found eight deaths which he thought due to anesthesia.

Ethylene

Ethylene produces narcosis by direct action, and the symptoms of asphysia do not appear during its administration. The drug has no effect upon the respiration or circulation, and does not interfere with intestinal movements nor with the function of the ledneys.

The nervous system, respiratory system and circulatory system are not injured by the drug. The same changes occur in the blood as occur following the use of nitrous oxide, but these changes are in a less degree. According to Stander, the changes in the liver lobules are less marked than following the use of either or introus oxide and no changes are produced in the kidneys by the drug.

There appears to be no danger of death during the administration of ethylene According to Sollman's if the concentration of ethylene is pushed much beyond ninety per cent in animal experimentation respiration ceases due to anoxemia, but that the animal may be resuscitated by means of artificial respiration as the drug itself has no toxic effects

The available statistics demonstrate that the morbidity following the use of ethylene is considerably less than following the use of ether. Lundy's comparative report has been presented, and in the series of Luckhrudt and Lewis, post-anesthetic vomiting occurred in 30.2 per cent of the cases anesthetized with ethylene, and in 76.6 per cent of those given ether. Gas pains occurred in only 4.2 per cent of the first group and in 36.6 per cent of the last

No fatalities due to this anesthesia were found in a review of the literature for the past ten years, and Sollman³⁰ stated that at the time of publication of his volume (1925) no fatalities had been reported in the clinical literature

Unfortunately the idea has been fixed in the minds of many that the use of ethylene is dangerous, not only to the person receiving it but also to the anesthetist, surgeon, and any others near by

Upon examination of the facts we find that there is no possibility of serious injury to the surgeon, anesthetist or other bystanders, that the explosion may take place in the lungs of the patient with fatal results, but this occurs as often during the use of ether as when ethylene is used. There is no evidence to lead us to believe that the use of ethylene is attended by any more danger from explosion than the use of ether. will seem a startling assertion to some which cannot be substantiated, but let us examine the evidence. Shortly after the introduction of ethylene as a general anesthetic there were several catastrophic accidents which were widely publicized. The impression was spread abroad that these accidents were due to ethylene. Upon investigation this was found to be untrue.

In the first six years following the use of ethylene as an anesthetic twelve explosions supposedly due to it were recorded with three fatalities. explosion was due to the use of a cautery on a carbuncle of the neck.81 anesthetizing machine had been removed from the room before the occurrence of the explosion due to ethylene. This parin the lungs of the patient. The second fatality³² was caused by an explosion during the administration of nitrous oxide and ether but as ethylene had been in use earlier during the anesthesia, the occurrence was attributed to its use and certain newspapers so stated. The third fatality³¹ occurred in Evansville, Indiana, and many newspapers carried accounts of the explosion due to ethylene. This particular occurrence I believe to be the real reason why ethylene is not the standard anesthetic today. The facts are, that the explosion took place in a tank known to contain nitrous oxide which was not attached to the machine at the time. It was thought that as it had been attached some ethylene might have flowed into it through the connecting tubes. no longer possible, as all modern machines have valves making back-flow impossible.

Since that time several investigations have been made of the subject. A report of a committee appointed for this purpose appeared in 1931, drafted by Henderson.³³ Three sets of questionnaires were reported. 288 hospitals replied to the

first series, 129 stating that they used ethylene. 158 stated that they did not, and twelve that it had been discontinued. The last two groups stated that they did not use it on account of the uncertainty regarding the exposive hazard. Eleven explosions were reported, one being the first mentioned, and another the Evansville occurrence. 118 hospitals reported 330,000 ethylene anesthesias without a single explosion.

Another set of questionnaires revealed that among 146,000 ethylene anesthesias recorded, four explosions occurred, one following application of a cautery to an open abscess on a lung and another caused by a cautery, a third due to the explosion of the rubber bag after anesthesia had been discontinued, and a fourth reported as serious, cause not mentioned.

Fifty-eight surgeons reported 163,000 ethylene anesthesias with eighteen explosions, five serious and one death. These same surgeons reported the observation of a considerable number of ether flares and nineteen explosions due to ether, five being serious and two fatal.

Salzer³⁴ sent out questionnaires to 478 hospitals and received reports of 425,000 ethylene anesthesias. There were ten explosions, 1—42,000, as a result of which there were three minor injuries, four destructions of equipment, and one death, this being an explosion in the lungs of a patient. Herb³⁵ in 1933 sent out questionnaires to the leading anesthetists in the United States and Canada and received reports of 1,005,375 ethylene anesthesias. In this series there were twenty explosions, one injury, and five The replies to the same questionnaires indicated that there had been thirty-nine explosions during the administration of nitrous oxide-ether-oxygen anesthesias resulting in seven injuries and five deaths. Although the number of nitrous oxide-ether-oxygen anesthesias given during this series is not reported, the greater number of explosions re-ported as a result of this form of anesthesia would not lead us to the conclusion that the risk is greater when ethylene is used.

Ethylene unmixed with other gases will not explode. It must be mixed with air in certain proportions in order to explode. When mixed with air, the lower limit of ethylene necessary for explosive possibili ties is four per cent and the upper twenty two per cent according to the U S Bureau of Standards When mixed with oxygen, the mixture must contain between five and seventy per cent ethylene. For this reason the gas in the tanks and in the tubes leading from the tank cannot explode. That in the gas cylinder can explode, but it is not under sufficient pressure to cause serious damage. The concentration in the room is below that required for an explosion It is the opinion of Sise36 that when precautions are taken to prevent the ignition of ethylene, its use is safer than the use of ether without precautions. The means of chiminating all danger of explosion has been adequately described, particularly by Bevan,37 who has not observed an explosion in 20,000 ethylene anesthesias. The principles are the presence of humidity over sixty per cent and the grounding of the apparatus

Considering the fact that ethylene is nontoxic, has never occasioned a death due to inhalation, and is attended by no more danger of explosion than ether, it seems that it is unquestionably the best of the anesthetics in present use, and that the use and application of this fact would save many lives Statistics which are presented in Tables I and II make it seem likely that the mortality with the other forms of anesthesia is greater than is

usually reported

There were 369 deaths on the operating table in the five boroughs of New York City during the years 1928 to 1932 inclusive The statistics were obtained from the Chief Medical Examiner's office

Those resulting from anesthesia are

recorded in the accompanying tables. These cases are thought to be true anesthetic deaths, as no case in which any other possible cause of death such as status lymphaticus, heart disease, shock, toxemia or other complications appeared is included. It is probable that many more of the total number of deaths were due to anesthesia, and it appears that such was the case. Table I presents cases in good general condition previous to operation for a disorder not requiring immediate intervention, while Table II consists of cases that were in good condition but operated upon for acute illnesses.

A questionnaire was sent to all the hospitals in New York City, numbering 213, requesting the number of the various anesthetics administered during the five year period under consideration. Infeen replies were received and the numbers of the various anesthetics were reported as

ionows			
Ether			51 427
Nitrous Oxid	e		18 161
Ethylene			1,229
Spinal			8 159
I ocal			18 659
Avertin			2 287
er11			

The percentages of each type in relation to the total number of anesthetics recorded

are	
Ether	51 66
Nitrous Oxide	18 1
Ethy lene	1 23
Spinal	81
Local	18 04
Avertin	2 28

The hospitals responding only represent approximately seven per cent of the hospitals in New York City and therefore the figures above cunnot be considered more than approximations of the real per-

TABLE I ANESTHETIC DEATHS DURING OFFRATIONS OF TELECHOM

	Liher	Nit Oride	Fihylene	Spi al	Local	Col Eth	Chlor I th Chl	Ateri
Prev to Opera	10	8	-	11	1.3		4	,,,,,,
Approx 10 minutes after beginning	15	6	_	12	• • • •		4	1
Approx. 30 minutes after beginning	31	7		íõ	7			
Approx. 1 hour or more				īň	2			3
replies I fight or more	22	•	_	1		2		7

TABLE II ANESTHETIC DEATHS DURING OPERATIONS OF NECESSITY

	Liher	Nst Ozide	Ethylene	Spinal	Local	Col Lih	Chlor Eth Cl	Aver
Prev to Opera	3	4		7				20.000
Approx 10 minutes after beginning	7			<u>.</u>			_	
Approx, 30 minutes after beginning	2	•		3	_			
approx, 30 minutes after negiming	8	2		2	1			
Approx 1 hour or more	7	1	-	9		-		
		-		-		1	_	

Total deaths from Anesthesia 219 Ether 99 Nitrous Oxide 33 Spinal 48 Local 20 C Ether 4 Avertin 11, Ethyl Cl 4. Ethylene 0

centages of the various anesthetics administered in this city. One fact, however, stands out clearly, namely, that although ethylene has been shown to be the safest of the anesthetics in present use, the available information indicates that it is administered to approximately one per cent of the persons receiving anesthesia.

In view of the present report of 219 deaths in five years in New York City apparently caused by anesthesia it seems that some action should be taken to make ethylene the standard anesthetic, which we believe would greatly reduce, if not eliminate entirely, this cause of death.

Conclusion

A small percentage of mortality attends the use of all standard anesthesias, save ethylene.

This small mortality appears relatively insignificant when viewed from the standpoint of the number of anesthesias administered but appears in a different light on realization of the actual number of persons dying from this cause.

Ethylene is safest of the anesthetics in present use and should be the standard.

The limited use of ethylene is probably due to inertia and unwarranted fear.

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Discussions

Dr. James T. Gwathmey, New York City-Dr. Henson's contribution is most valuable because it brings out the safety of ethylene as compared to other anesthetics better than any paper heretofore written.

Ethylene anesthetizes as does ether or chloroform. In comparison, nitrous oxide is an asphyxiating anesthetic. But the statistics given by Dr. Henson indicate more clearly its safety than any possible description or comparison of the gases.

Over ninety per cent of all explosions is due to static electricity. This element is completely eliminated, in my opinion, by passing the gases through water, thus moistening the tubes, bag, and mask, and rendering static impossible in the apparatus. rendering static impossible in the apparatus; and by maintaining the proper degree of moisture in the operating room.

At the present time, it would be a very great mistake to attempt to make ethylene the exclusive anesthetic. The safety of

ethylene itself is enhanced by using it in sequence and combination with other anesthetics, as indicated by the type of operation and the condition of the patient.

Dr. Paul M. Wood, New York City— Dr. Henson has presented facts concerning of the more popularly accepted anesthetic agents. He has found numerous references to good and bad features of all and has set forth a timely and thorough defense of a very good and useful agent ethylene. His attempt to locate the cause of anesthetic disaster, unfortunately, did not go beyond the various agents in this report. As an anesthesiologist, I am certain that the agent is seldom any more at fault than is the method and skill of the anesthetizer. Given a properly trained and qualified anesthetist, morbidity and mortality will fall regardless of agent, technic or patient's condition.

THROMBOCYTOPENIC PURPURA

Following Medication With Sedormid and With Phenobarbital

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The fact that many disease states are directly caused by drugs administered or taken for the relief of symptoms is gaining ever greater recognition. For example, amidopyrine and dinitrophenol play etiological roles in agranulocytosis; cinchophen may cause acute yellow atrophy of the liver; arsphenamine administration may be followed by dermatitis, hepatitis or aplasia of the bone marrow, and thrombopenia; sulphonal may cause hematoporphyrinuria.

We wish to present two cases that illustrate unusual reactions to rather common drugs. The first is one of symptomatic thrombocytopenic purpura caused by sedornid; the second illustrates thrombopenic and febrile reactions that may follow the administration of phenobarital. Purpura following the administration of sedormid has been described.¹

Sensitivity may become manifest after long usage of a drug, and symptoms frequently develop when a drug is again taken after its use had been discontinued. Many unexplained mouth ulcers, bleedings, headaches, fevers are due to such drug sensitivity.

Case 1: F.G., white, female, age forty-seven, Russian, entered Mount Sinai Hospital December 9, 1934. The past history revealed a moderate conduction deafness due to scarlet fever in childhood. A cholecystectomy was performed two previously and was followed by phlebitis and edema of both lower extremities. The patient still complained of the same pains and epigastric distress especially after fatty meals. She had taken no medication, except sedormid, and used no hair dyes or hair remover during the past three years. The diet had been limited because fats caused discomfort. During the past two years the patient has taken sedormid (allylisopropylacetyl carbamide) occasionally, at times as often as three times a week. It was taken usually before her menstrual periods. One month before admission she took a single tablet (4 grains) and the next morning a diffuse purpuric eruption appeared over the

body. The menses also started, but the duration of the period, the amount of the flow and the time of its occurrence were normal. The purpura disappeared in about one week. On two successive nights immediately preceding the present attack, which occurred in the morning, she took four grains of sedormid. This again was just before her menstrual period. Between attacks she had taken no sedormid whatsoever. For thirty-six hours before admission she had severe epistaxis, profuse menstruation, and diffuse

generalized purpura.

On admission she presented a marked purpura, with the eyelid margins markedly hemorrhagic, and numerous petechiae of the conjunctiva, epistaxis, severe gum bleeding with hemorrhagic blebs on the buccal mucous membrane, with free blood in the pharynx, diffuse petechial spots and ecchymoses over the anterior and posterior aspects of the trunk and extremities, and profuse vaginal bleeding. There was blood in the urine and stool. The lymph nodes were not enlarged. The thyroid gland and the heart and lungs were normal. There was a healed right rectus scar but there was no abdominal tenderness and no masses were palpable. The spleen could not be felt. The uterus was small anteflexed and not tender. The adnexae were normal. There was moderate non-pitting edema of both legs. Blood pressure was 104/60. There was no fever at any time. The urine contained many red blood cells. The blood Wassermann reaction was negative.

The admission blood examination, De-

cember 9, was as follows:

Hemoglobin—92% Red blood cells, 4,250,000 White blood cells—10,400 Blood platelets—70,000 Polymorphonuclears

Non-segmented—40% Segmented—50% Lymphocytes—10% Clotting time—4 minutes. No clot retraction Bleeding time—30 min. Tourniquet test—positive in 2 minutes.

She received no treatment and in the course of five days there was a complete spontaneous remission with cessation of bleeding and gradual disappearance of the hemorrhagic spots. Blood count on December 15 showed:

Hemoglobin—61%
Red blood cells—2,450,000
White blood cells—6,700
Blood platelets—190,000
Reticulocytes—5.0%
Polymorphonuclears—72%
Non-segmented—18%
Segmented—54%
Łosinophiles—4%
Basophiles—1%
Lymphocytes—16%
Monocytes—76%
Clotting time—5 minutes—good clot retraction in one hour
Bleeding time—8 minutes

A biopsy of the sternal bone marrow on December 18 revealed no abnormalities. The megakaryocytes were normal in number.

Negative tourniquet test.

Because of the recurrent purpura with rapid spontaneous improvement a drug intoxication was suspected, and then the history of sedormid medication was obtained. A patch test with sedormid suspended in water and lanolin was negative. A test dose of sedormid was then given and during the following days frequent blood platelet counts were made as shown in Table I.

1-9-35 Hemoglobin—78%
Red blood cells—4,520,000
White blood cells—8,700
Polymorphonuclears
Segmented—35%
Non-segmented—26%
Eosinophiles—7%
Basophiles—2%
Lymphocytes—24%
Monocytes—7%
Reticulocytes—5%
Bleeding time and coagulation normal.

The patient left the hospital in good condition and was warned against sedormid. Six weeks later she had gained sixteen pounds in weight. She was seen four months later on May 2. She had had no purpura or other complaints. A blood count on that date revealed:

TABLE I. BLOOD PLATELETS

1-2-35	9:10 a.m.		Sedormid given 2 grs.
	9:15 a.m.	340,000	Negative tourniquet test
	11:15 a.m.	290,000	normal bleeding time.
	1:15 p.m.	280,000	
	6:00 p.m.	260,000	
1-3	9:00 a.m.	240,000	Bleeding time 8 minutes tourniquet test positive
	3:00 p.m.	140,000	Gums bleeding
	7:00 p.m.	160,000	General aches and pains
1-4	9:00 a.m.	190,000	Menstruation
	1:00 p.m.	190,000	
	7:00 p.m.	140,000	
1-5	9:00 a.m.	150,000	
1-6		150,000	
1-7	9:00 a.m.	140,000	
	7:00 p.m.	150,000	
1-8	9:00 a.m.	180,000	
1-9	9:00 a.m.	230,000	

Hemoglobin—86%
Red blood cells—4,440,000
White blood cells—6,500
Platelets—260,000
Polymorphonuclears
Non-segmented—5%
Segmented—66%
Eosinophiles—3%
Basophiles—1%
Lymphocytes—17%
Reticulocytes—17%
Monocytes—8%

Case II—F. P., white, female, age fifty-two, Austrian, was admitted to the Mount Sinai Hospital, December 14, 1934, complaining of weakness and post-prandial vomiting.

She had been in fair health until the past year during which she lost forty pounds in weight. For six months she had frequent post-prandial vomiting and a sense of a moving hard ball in the upper abdomen.

Physical examination revealed a thin, elderly woman with sallow skin. The sclerae were blue and there was a central opacity of the right cornea. There were a few high-pitched squeaking rales at the right base. A short systolic murmur was heard at the apex. The liver was enlarged to approximately one inch below the costal margin. There was a protuberance of the upper abdomen and peristaltic waves were visible. Blood pressure was 104/46.

The urine was normal. The Wassermann reaction was negative. Blood: urea N 17 mg. per 100 c.c., chlorids 585, CO² 54%. Stools were guaiac positive. Gastrointestinal x-rays showed the presence of marked stenosis near the pylorus with seventy-five per cent gastric residue twenty-four hours after the barium meal. X-rays of the chest and pelvis were negative. Rehfuss test meal indicated a total acidity of sixty-three, no free HCl and positive lactic acid. Four days later gastric aspiration revealed no free HCl and lactic acid with Boas-Oppler bacilli. Blood examination showed:

Hemoglobin—34% Red blood cells—2,859,000 White blood cells—7,700 Polymorphonuclears—76% Lymphocytes—20%, Monocytes—4%

From the day of admission she received ½ grain of phenobarbital three times a day. On December 22, after she had been in the hospital eight days the temperature which had been normal suddenly rose to 103.6°F. Physical examination was negative except for the presence of a small red spot in the roof of the mouth. The next day the spleen was palpable. The fol-

lowing day (December 24) a diffuse miculopapular rish, (a typical phenobarbital cruption) appeared all over the body Temperature persisted at 102 8° F She received a transfusion of 300 e c of citrated blood in preparation for operation Immediately following the transfusion she had a chill with rise in temperature to 105, and a subsequent drop to 99 4 The following day the temperature again rose to 102 and gradually defervesced in five days and became normal on December 29 On December 28 miny purpuric spots appeared on the chest, abdomen, thighs, and legs There were petechine in the conjunctiva, and on the buccal mucosi Blood examination on this day showed

Hemoglobin—37% Red blood cells—3,240 000 Blood platelets—70 000

Coagulation time 6 minutes There was no clot retriction

Bleeding time—over 45 minutes

The tourniquet test was positive in 3 minutes

Blood count on December 29

Hemoglobm—35% Red blood cells—1 830 000 White blood cells—7 700 Blood platelets—20 000 Polymorphonuclears Non segmented—14% Segmented—65% Lymphocytes—14% Monococytes—14% Monococytes—6% Reticulocytes 5% Coagulation time—7 minutes Bleeding time—30 minutes

Tourniquet test-positive

The administration of phenobarbital was stopped and in three days the purpura began to disappear On January 1, 1935, the tourniquet test was still positive On January 2 the blood platelets were 50 000 Blood count January 5 was

Hemoglobin-50%

Red blood cells—3 320 000 White blood cells—10 900 Blood platelets—360 000 Polymorphonucleurs

Non segmented—16% Segmented—57% Basophiles—27% Lymphocytes—22% Monococytes—37% Bleeding time and coagulation—normal

On January 14 a Inprotomy was performed An adenocarcinoma of the pylorus without evident metastases was found and a partial gastrectomy was performed Convalescence from the operation was un eventful and the patient was retransferred to the Medical Service for further study A patch test with phenobarbital was negative

Blood count February 4 showed

Hemoglobin—41% Red blood cells—2,510 000 White blood cells—4,200 Blood platelets—120 000 Polymorphonuclears—54% Tosinophiles—4% Basophiles—2% Lymphocytes—38% Monoccoytes—2%

The patient then was given test doses of phenobarbital as shown in Table II She had a marked febrile reaction to the drug, but no rash or purpura appeared nor was there a drop in the blood platelets. The patient was discharged on April 13 feeling well

Purpura has been observed following the administration of many drugs such as quinine, neoarsphenamine, iodides, nin-vanol, and phenobarital Dennig observed a woman with two attacks of purpura, each following the ingestion of a tablet of sedormid He, however, attributed the purpura to iodides Loewy has pointed out that drug rashes caused by

TABLE II EFFECT OF PHENOBARBITAL ON BLOOD PICTURE (CASE II)

Date Feb)	Hour	Red blood cells	Blood platelets	Phenobarbital grains	Remarks
5 ·	9 P M	2 470 000	190 000	1	
5 7	9 A M	2 720 000	200 000	i	
7	9 8 24	2 560 000	200 000	1	
	3 P M	2 500 500	200 000	i	Tomo 101 4
	9 P M			i	Temp 101 4
3	9 A M	2 840 000	310 000	1	Temp 102 5
	3 P N	2 010 000	010 000	7	Temp 101 2
)	9 A M	2 740 000	220 000	Į.	
3	9 A M	3 120 000	280 000	v v	Temp 102 4
i	9 Å M	3 500 000	240 000	Ÿ	Temp 99
•	3 p M	3 300 000	240 000	1	Temp 99
				•	
	9 р м	2 940 000	010 000	2	Temp 100 6
•	9 A M		260 000	0	•
1 5 7	9 r M	2 820 000	260 000	2	Temp 99-100
:	9 b M	2 880 000	240 000	0	
!	9 P M	2 960 000	280 000	2	
3	9 p M	5 040 000	510 000	2	Transfusion
y	9 P M	3 776 000	260 000	ō	* *************************************

ureids with an open chain of carbon atoms, drugs such as adalin, abasin, sedormid, develop insidiously without fever; whereas those caused by the barbiturates which are characterized by a closed ring of carbon atoms, drugs such as medinal, phenobarbital, nirvanol, cause acute rashes with fever.

Our two cases bear this out. The patient who had been taking phenobarbital first developed fever, then a diffuse maculopapular rash, and purpura appeared only four days later. This same sequence occurred in the reported case of nirvanol³ purpura. Subsequently when the patient was tested against the drug she promptly became febrile taking small doses but no rash appeared, nor did the blood platelet count fall.

The patient who developed thrombocytopenic purpura following sedormid medication is more instructive. The case again illustrates the fact that typical severe purpura may be only a symptomatic manifestation of drug idiosyncrasy. This must always be borne in mind, particularly when there are repeated bouts of purpura with spontaneous recovery. In this patient the appearance of purpura coincided with her menstrual period on two occasions. This might lead to the suspicion of some endocrine factor provoking the blood dyscrasia. Indeed not a few authors have described such cases

and have concluded that the ovaries may in some way determine such cyclic bleeding manifestations. Self-medication for the relief of menstrual pain or discomfort is so common among women that "allergotoxic" symptoms recurring periodically with the menses should always arouse the suspicion of drug idiosyncrasy. Transient monthly recurring disorders in women, particularly with gastrointestinal symptoms or cutaneous mainfestitations always call for careful investigation of drugs that may have been taken to relieve menstrual distress.

Summary

Two cases of symptomatic purpura are reported, one caused by the hypnotic sedormid, the other by phenobarital. Attention is called to the fact that self-medication by women for the relief of menstrual pain may give rise to cyclic disorders that may erroneously be attributed to endocrine influence.

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STATE AUXILIARY ORGANIZED

The organization meeting of the Women's Auxiliary to the Medical Society of the State of New York, composed of wives of physician members of the various constituent county societies in the State society, was held on March 11 at the Hotel Waldorf-Astoria. More than fifty delegates attended.

The speakers included Dr. Frederic E. Sondern, president of the State society; Mrs. Samuel C. Red of Houston, Texas; Mrs. Rogers N. Herbert, president of the Women's Auxiliary of the American Medical Association, and Mrs. John L. Bauer

of Brooklyn.

The following officers were elected: President, Mrs. Bauer; president-elect, Mrs. Francis R. Irving of Kings County; first vice president, Mrs. Edward A. Fleming of Queens; second vice president, Mrs. Frederic E. Elliott of Kings; recording

secretary, Mrs. Henry Hirsch of Nassau, and treasurer, Mrs. Daniel Swan of Queens.

The following were elected to the board of directors: Mrs. Charles H. Goodrich of Kings, Mrs. A. M. Bell of Nassau, Mrs. H. Bull of Cayuga County, Mrs. W. Pennock of Onondaga County, Mrs. M. Berkowitz and Mrs. Edwin A. Griffin of Kings County.

The purposes of the organization are "to extend the aims of the medical profession to all organizations which look to the advancement of health, to act as a liaison body between the medical profession and the public, to interpret the thoughts of medical experts to the laity, and to do such other work as may be approved from time to time by the Medical Society of the State of New York and by the American Medical Association."

INFECTIOUS GASTROENTERITIS

JOSEPH P. GAREN, M.D., Olcan

From time to time, in several parts of western New York State, the practicing physician meets with epidemics of rather puzzling clinical condition which he can give no definite name. This condition, characterized by nausea, vomiting, diarrhea, and related symptoms, in varying degrees of severity and sequence of occurrence, is one which at no time is fatal, or productive of long periods of disability. It is, nevertheless, the source of much worry to the attending physician, due primarily to his inability to assure himself that he is dealing only with a minor definite clinical entity, instead of the prodromata of a more serious illness. The condition can be, and often is, a source of worry also to the health departments, inasmuch as diarthea occurring in epidemics may well be an indication of fecal pollution of a water supply, and at times a sign of an impending water-borne typhoid epidemic.

In view of the above, an effort is here made to present such observations as have been made regarding this condition in and about the city of Olean, to collect and correlate the information at hand in the literature at the present time regarding the condition, and to draw such conclusions as may seem justified therefrom.

Prior to 1928 it had been a matter of common knowledge among the physicians of Olean, for several years, that two or three times a year, in and around the city, outbreaks of diarrhea and other gastroenteric disturbances were likely to occur. Various opinions were held as to the cause of these outbreaks. Some maintained that they were synchronous with the appearance of various seasonal fruits and vegetables on the market, and were due to the injudicious use of these foods. held that the outbreaks were caused by the public water supply, which at that time, in Olean, was a mixture of well water and filtered and chlorinated surface water. Others still were of the opinion that the disease was a form of influenza, spread by contact, with the organisms

or virus entering the body through the nasopharynx.

Early in 1928 a particularly severe and wide-spread epidemic of gastroenteric disturbance occurred in Olean, and this was followed by a second outbreak in July and August of the same year. It was noted at the time by many physicians that some cases were appearing at the same time in rural areas and villages also.

In September 1928 an explosive outbreak of typhoid fever occurred in Olean. Investigation of the outbreak established it definitely as a water-borne one, and demonstrated a pollution of the public water supply at the point where water obtained from the auxiliary wells was added to the filtered, chlorinated supply of surface water from a stream.

Immediately the epidemics of gastroenteritis preceding the typhoid epidemic acquired a definite significance. It was felt that they were due to the pollution of the water supply with various fecal organisms and associated impurities. When the pollution causing the gastroenteritis was augmented by additional pollution from feces containing typhoid bacilli, a typhoid fever epidemic resulted.

The fact that the great majority of the people with gastroenteritis were consumers of the polluted water supported this assumption, although numerous isolated instances were recalled by physicians, of individuals outside of the city, who had at no time drunk the polluted water, but whose attacks of gastroenteritis were synchronous with those in the city.

Following the epidemic of typhoid fever, an entire reorganization of the water system of Olean took place. All sources of possible pollution were obviated, and a supply obtained entirely of surface water, chlorinated, filtered, and again chlorinated; with a complete and frequent bacteriological control of the process. A water was produced consistently free from colon bacilli, and meeting every requirement of the Federal and State health services.

However, outbreaks of gastroenteritis

continued to occur in Olean. It was thought for a time that these outbreaks might have been more apparent than real, due to a "diarrhea consciousness" among the people, as a result of their experience with typhoid fever.

In time it became evident, however, that these outbreaks of diarrhea were actual. Some of them were minor, others quite severe. Studies of the records available in the files of the Olean City health department show that in March 1929, February 1932, August 1932, April 1934, and March 1935 the condition was prevalent enough to warrant correspondence with the county and State health authorities, and at times to necessitate newspaper notices of reassurance as to the purity of the public water supply. It is worthy of note also that at the time of the April 1934 outbreak cases were prevalent in other western New York places, especially Salamanca, Portville, and Randolph.

At no time, in connection with these outbreaks in Olean, since 1928, has it been possible to demonstrate pollution of the water supply, either preciding or at the

time of the gastroenteritis. It has been a difficult task to obtain any complete clinical or epidemiological data on the disease as it has existed in Olean. Comparatively few of the cases have been ill enough to seek the services of a physician, and the presence of a large number of cases was often ascertained only by judging from the number of calls coming to the health department, inquiring as to the safety of the water supply. Questioning of such inquirers usually brought out the information that several cases of gastroenteritis were present in the family, or in a friend's or neighbor's family. At times telephone calls and questionnaires to physicians have been of use in obtaining information, as have inquiries in drug stores, etc.

Based upon personal experience, upon information given by persons affected, and upon attending physicians' observations, a typical case of the local gastroenteritis may be described as follows:

There is a sudden onset of nausea, accompanied by a dull headache. At the same time, or within an hour or so, a diarrhea begins, which lasts about twelve hours, with evacuations at first every half hour or oftener, but gradually diminishing. There

is a moderate amount of griping with the diarrhea, and a feeling of soreness through the entire abdomen. There is moderate prostration during the attack, and some dizziness. Recovery is usually rapid. There is no fever, and the pulse is not markedly changed. In the few cases locally where leukcocyte counts have been taken they have been within normal limits.

Epidemiologically, in connection with the April 1934 outbreak, the services of TERA nurses in Olean were utilized, and a house to house canvass was made in representative areas of the city. The survey covered a period of fifteen days. A total of 777 individuals, in 190 families, The cases uncovered was enumerated. were thirty-six, indicating approximately 1,000 cases for the entire city for the period studied. No differences were found in the distribution of the cases in different parts of the city, and no article of food or drink was demonstrated as common to all the cases. The water used by five of the cases was well or spring water exclusively, by eighteen of the cases city water exclusively, and by thirteen, combinations of sources. There had been no absences from the city in the preceding seven days in twenty-five of the cases. In fifteen of the thirty-six cases there was a history of contact with a similar case within the preceding seven days. The duration of the attack varied from less than one day in one case to three days in nine cases, with twelve of the cases lasting longer than three days. In addition to diarrhea, the most prominent symptoms were, in the order of their frequency: severe abdominal pain, "feverishness," vomiting, headache, dizziness. chills, nausea, and general aching.

A study of the literature shows that this condition, or a comparable one, has aroused interest of late in other places. Spencer, of the United States Public Health Service, reports 1 a mild, dysentery-like epidemic, with no deaths, occurring during the summer months in the northwestern part of the United States. He found the unknown infection resembling symptomatically the food poisonings due to the enteritis group of organisms, but with no epidemiological confirmation. He found the condition transmitted from person to person, or from person to food to person. The incubation was less than

twenty-four hours, and the onset was sudden, with watery diarrhea and abdominal pain. Second attacks were fairly frequent, occurring in twenty out of ninety-five cases. A leukocytosis of 10,000 to 15,000 was a frequent phenomenon.

In 1932 the United States Public Health Service studied 2 an epidemic of gastroenteritis occurring in and around Ellicottville, in this county. There were 248 cases discovered and studied, and the conclusion was that the condition indicated an infectious enteric disease the specific cause of which was unknown. Water as a source of the disease was eliminated by demonstrating that many cases occurred on farms, using individual wells and springs.

On the other hand, Veldee,* studying an outbreak of gastroenteritis in Charleston, W. Va., implicated a water supply. He reported that late in October, 1930 there appeared in Charleston an acute ailment initiated by a severe pain in the epigastrium, followed by nausea, sometimes by vomiting, and diarrhea within a few hours. In relatively few cases was a physician consulted, and the attacks rarely lasted over three or four days, with the milder one lasting only a few hours. Following the subsidence of the epidemic in Charleston, similar cases appeared in Huntington, W. Va., and then further down the Ohio River, in Ironton, O. and Ashland, Ky. Later the condition arrived in Cincinnati and in Louisville.

Veldee found that during the period of the epidemic Charleston's water supply was largely from a river which empties into the Ohio just above Huntington. All the other cities affected derived their water from the Ohio River. In no instance was he able to find that there had been any breakdown in the purification processes by which the polluted water of the Ohio was prepared for drinking. In all cities affected the colon bacillus indices of the treated waters were within proper limits. Veldee concluded that the causative agent in his epidemics was transmitted by the public water supplies of the cities involved, which water supplies had a common source. He found no evidence that the condition was produced by a viable organism in the water, as determined by standard methods of analysis, but was strongly of the opinion that the cause was the presence of some irritant with a strong purgative action. He was not prepared to say whether the irritant was a cleavage product of bacterial action, or a new chemical produced by bacterial synthesis, or an increased concentration of some chemical agent in the water, due to drought conditions.

A series of outbreaks in Michigan have been reported by Wildman who states that apparently there exists quite generally a clinical entity which has in the past been erroneously diagnosed intestinal influenza, food poisoning, etc. To the condition he gives the name polytropous enteronitis. Clinically he finds that the cases are characterized by a sudden onset of one or more of the following symptoms, here given in the order of their frequency:

anorexia, nausea, vomiting, diarrhea, dizziness on standii drll frontal headache, aching in the ck and legs, abdominal distress, chilliness, and "cold in the head."

In his cases fever was absent or slight. Tenderness was noted in many cases along the colon, especially the sigmoid. At times tenderness was at McBurney's point. Early in the disease he found a moderate leukeocytosis (15,000) followed later in the disease by a leukeopenia.

According to the symptoms most prominent, he classified the disease into six types. These were:

gastroenteric (nausea, vomiting, and diarrhea) entero-colic (diarrhea and cramps) gastric (anorexia, nausea, and vomiting) neuro-circulatory (dizziness and dull headache) typhlo-appendical (resembling appendicitis) colic (severe mid-abdominal pain, constipation)

In Alabama a possibly similar condition has been noted by McLean among children. He finds it related to acute respiratory infection, and gives it the name "seasonal gastroenteritis."

In Louisiana, Lucas has noted epidemics of vomiting, sometimes accompanied by diarrhea, occurring in children in the winter months. He suggests that the condition might well be an intestinal influenza.

That influenza can give rise to symptoms similar to those here described is indicated by an English writer, Douthwaite, who describes the influenza prevalent in England in 1932. In no year, he asserts, were the abdominal symptoms of the disease more evident. were four main types of abdominal or intestinal influenza seen by him. were: the gastric, the gastrointestinal, the appendicular, and the typhoid.

It is evident from the foregoing that the cause and mode of spread of the gastroenteritis sometimes prevalent in and around Olean and other parts of western New York is at present not entirely clear. It is evident also that this gastroenteritis has its counterpart in other areas of the country. Investigation in these areas has, so far, given rise to no definite etiological conclusions. Perhaps the condition can best be considered as an infection of the contagious

If we admit the existence of intestinal influenza as a clinical entity, it is possible to consider the condition a form of influenza. However, its occurrence in Olean and other places in the entire absence of any of the more conventional forms of influenza, argues strongly against this view.

From a practical standpoint, some little consideration must be given to this condition, at times when it is prevalent, by the surgeon, in his differential diagnosis of acute abdominal conditions.

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THOMAS WILLIAM SALMON MEMORIAL LECTURES

The Salmon Committee on Psychiatry and Mental Hygiene invites the medical profession and their friends to The Fourth Series of Thomas William Salmon Memorial Lectures to be given by Samuel T. Orton, M.D., April 10, 17, and 24, at 8:30 P.M. at The New York Academy of Medicine, 2 East 103rd Street, New York.

Developmental Disorders of the Language Faculty and Their Psychiatric Import

Lecture I. (April 10) Language Losses in the Adult as the Key to the Developmental Disorders in Children. A discussion of the physiological background of the language faculty as revealed in the aphasias. The problem of unilateral cerebral dominance. Reports of studies

indicating that all degrees of intermixture occur between right and left sidedness. Such intergrading between the hemispheres is suggested as the background for many language disorders in children.

Lecture II. (April 17) The Syndromes of Disorder in the Development of Language. Six syndromes are discussed from the point of view of their symptomatology:-Reading Disability (strephosymbolia), developmental word deafness, congenital apraxia, motor speech delay,

writing disability, and stuttering.
Lecture III. (April 24) Treatment and Psychiatric Interpretation. A brief review of the general principles of treatment of the various syndromes, together with a discussion of the relation of these conditions to emotional and

mental development.

A clinical session on chronic pulmonary diseases under the auspices of the Tuberculosis Sanatorium Conference of Metropolitan New York will be held in the amphitheatre at Cornell University Medical College, 1300 York Avenue, New York City (between 69th and 70th Streets), on Wednesday evening, April 8, 1936, at 8:30 P. M., with informal presentation of x-rays 7:45 to 8:30 P. M. Physicians are invited to bring with them any interesting x-ray films.

For further information communicate with Bernard S. Coleman, Secretary, 386 Fourth Avenue, New York City, CAledonia 5-2240.

Information has come of the existence of a Bureau of Medical Relations with Foreign Countries (Bureau des Relations Medicales avec l'Etranger) at the Faculty of Medicine in Paris; here students and physicians will be able to obtain any information they de-

sire concerning postgraduate courses or hospital services.

Foreign students or physicians should communicate with the Bureau of Medical Relations at the Faculty of Medicine in Paris and inform them of their arrival; a cordial welcome will be extended to them.

SARCOMA OF THE PROSTATE Report of One Case

TLRIY M TOWNSEND, MD, FACS, New Yorl City and

OLIVER A KOBISK, M D, New Yorl City

From the Department of Urology, Morrisania City Hospital, New York City

The rarity of sarcoma originating in the prostate gland justifies the report of each case verified by the microscope. In 1934 Lowsley and Kimballi scarched the literature and reported 132 authenticated cases. Since their publication twelve other case reports have been added, and are shown in Table I.

Therefore, we learn by search of the hterature that our case is the one hundred and forty fifth authenticated one of this

tumor

J I age twenty seven was admitted to Morrisami City Hospital on September 29 1935. His chief complaint began one verification frequent hematuri, and lumbar pain radiating to groins and perineum. He had lost fifteen to twenty pounds in the preceding two months and had constant malaise. The family and other personal history is irrelevant.

He was somewhat currented and anomic in appearance. The left costovertebral angle was somewhat tender the right kidney was palpable and slightly enlarged. Immediately over the symphysis pubes there was a small mass quite eensitive to pressure. The prostate was firm arregular slightly enlarged median sulcus obliterated by a small very sensitive area on the outer margin of the right lateral lobe. Both seminal vesicles were cord like in form and consistency. The sphincteric tone was good.

Residual urine forty c c contained a frint trace of albumin few red blood cells and six to eight clumped pus cells per high power field The blood picture showed red blood cells 3 900,000, white cells 11 200, blood urer 12, creatinine 1 Kidney function by phenolsuphionephthalein was sixty five p r cent

Intravenous urography three days later is reported as follows

First plate showed a very large right kidney, the lower pole of which extended to the level of the crest of the thinin. The left kidney was not satisfactorily visualized due to the overlying intestinal gas the right kidney outline smooth and regular in contour.

No radio opique fluid appeared in the right kidney or right urcter. The left kidney showed distinct and marked dilation of the kidney pelvis and calyees more particularly the lower calve left lidney also enlarged. The left ureter was dilated throughout with an especially wide dilation at the ureterovesical orifice.

On the following div a cystogram was done with the following results

A large right kidney as previously reported was visualized. In the urunity bladder region was seen a faint irregularly circular shadow about the size of a plum

The bladder was somewhat irregular in contour and suggests the possibility of the presence of a large diverticulum. Within the bladder region was seen a shadow about the size of a plum but somewhat less dense than the remainder of the bladder. Its appearance suggested the probability of a large mass of lesser density than a stone, but there appeared a slight deposit of calcium or other opaque material on its surface.

He recuperated from these instrumentations and one week later October 10 under light spiral anesthesia cystoscopy with the number twenty four panendoscope and the

TALLE I

			1 111	LE I	
1 err	At ti or	Age	Duration	Type	Metastases
1927 1928	Sarjeant Hicks Kn ght	16	4 months	Sp ndle celled sarcoma	
1930	Gomez ³ Deloulay ⁴	34 17	10 months 3 months	Carcinosarcoma	Pelv s ab lomen, retrojen
1930 1932	Zau Zung Dau [‡] L imn czer [‡]	51 3		Spindle celled Spindle celled	toneal scarpa's triangle
1932 1934	Mezo B Cole and Mart n	56 18	11 n onths	Sp : dle celle l Lyn phosarcoma	I ancreas
1934 1934 1934	G lbert G lbert D al °	16	3 months 113 months	in lie celled	I ungs
1935 1935	Jelm ¹² Ray ¹³	59 44 8 mos	7 months 1 month	Lymi hosarcoma Myosarcoma Sp ndle celled	Pelvis liver lung Lungs

number twenty-four Brown-Buerger supplied these findings:

The vesical mucosa was very congested and edematous. Just above the right ureteral orifice was a mass the size of a lemon, attached on a broad pedicle to the bladder floor. Part of this mass was covered with a calcified coating. The left ureteral orifice could not be seen. The right orifice was seen anterior to the mass described above. The bladder neck and posterior urethra were normal.

The partially necrosed and partly encrusted growth is shown in the accompanying colored plates which were made in water color by Dr. John Duff, Associate in Urology in our hospital. No one of the staff ventured a diagnosis of the nature of the neoplasm, nor could we hope for its total ablation because of its broad base. Solely with the attempt to increase the lumen of the bladder, he was operated the

following day.

The bladder was opened in the usual midline. Retractors were introduced with difficulty around the tumor mass which was small orange size, greyish green in color, and fairly firm in consistency. It was firmly attached to the right lower portion of the bladder by a broad pedicle about three cm. long, which apparently rose from the right lateral prostatic lobe and was continuous with the prostatic capsule A broad right angle clamp was locked about this pedicle, the tumor excised, and the pedicle ligated. A portion of the pedicle slipped from the ligature and the lively hemorrhage was controlled by packing.

The final packing was removed in one week and moderate hemorrhage recurred. He was transfused with 500 c.c. by the direct method. Fulguration under gas narcosis did not completely control bleeding and the bladder was repacked for three days. Active bleeding then ceased. The wound was sutured in layers and the bladder gradu-

ally closed.

Pathologic report: The tissue mass was 6½ cm. in length by 3¾ cm. wide, greenish in discoloration. The microscope showed round and spindle celled fibrosarcoma with commencing pigmentation (early melanotic) originating in the prostate gland. The tumor was extremely vascular, had some large blood vessels with thickened media (muscular coat) such as could be seen in the prostate gland. Mitotic changes were present in the larger cells.

The bladder was infected and foul, and his septic temperature elevation ranged from 101° to 103° F. for twenty-six days.

From Nov. 6 to Dec. 21, thirty-one deep x-ray treatments were administered. The patient was discharged Dec. 21, all symptoms absent or much ameliorated.

He was readmitted January 4, 1936, stating that he had gained weight and had no pain, hematuria or burning on urination, nor any discomfort in the renal regions. He had nocturia twice and four urinations during the day.

On January 9, 1936, he was cystoscoped under gas anesthesia with a number twenty-four Brown-Buerger instrument revealing as follows:

The bladder walls were mildly hyperemic throughout. There was a large epithelialized tumor mass extending from just above trigone to one o'clock on the vault. The mass seemed to be pedunculated as the cleft between bladder and lateral wall could be seen. The left ureteral orifice was normal in size, position, and appearance. The right was not visible as it was covered by the tumor mass. The bladder neck was normal.

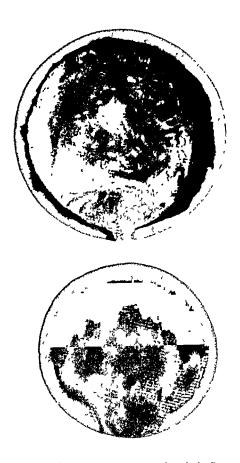
He was again operated on January 14, under general anesthesia. A mideline incision into theb ladder through the old scar was made because of peritoneal adhesions. A large, round, smooth, hard mass, epithelialized, the size of a small orange, with a very broad base, was found attached to the bladder on the right side of the ureteral orifice. The mucosa on the left side of the ureteral orifice was puckered and could be traced into the right lobe of the prostate and then lost. The tumor was very friable and attempts to grasp it with volsella were unsuccessful, causing more bleeding. It was clamped at the base, excised and the base thoroughly fulgurated. Because of hemorrhage, the bladder was packed firmly around a Marion tube, and the wound sutured in the usual manner.

On January 17, the malodorous packing was removed under general anesthesia, with slight bleeding, which ceased after copious bladder irrigation.

The laboratory examination of the removed tissue revealed tissue of young elliptical fibrocytes with areas of large round vesicular cells and with prostatic tubules. Diagnosis: Fibrous sarcoma of prostate.

The temperature elevation and chills pointed to systemic infection and a blood culture revealed bacillus coli in the circulation. Two days (January 19) later he was transfused with 315 c.c. by the direct method, with immediate improvement. He became ambulant in the ward; the bladder wound almost closed and on February 11, ten seeds of radium emanation of approximately 1.5 milcuries (total 15.3 milcurie hours), were inserted into the stump of the tumor through the cystoscope.

During the second admission the patient lost six pounds and continued emaciated. The blood picture was essentially unchanged



At top Intravesical tumor as seen through the Brown Buerger cystoscope—Bottom The tumor as seen through the McCarthy panendoscope

and he showed no evidence of protein toxemia from the radium seed implantation.

Neither was there evidence of metatastic involvement unless the non-functioning right kidney was the site. This can be confirmed only by autopsy.

Discussion

Doubtless there have been thousands of patients who have died from sarcoma of the prostate, which was either incorrectly diagnosed or remained undiagnosed. our case attention was directed first toward the upper urinary tract because of the renal discomfort, with subsequent hematuria, and the preliminary intraven-In other reous urographic findings. ported cases the observers relate that their preliminary working diagnosis was acute prostatitis, prostatic abscess or senile prostatic obstruction. All of the cases were correctly diagnosed only after operation or autopsy.

The etiologic theory of cells misplaced in embryonal development is purely conjectural and is less tenable when the age incidence of four months to eighty-eight years is remembered. The only finding which might give any credibility to this theory is that seventy-one of the 145 reports are in patients of thirty or less

The tumor is painless and symptoms are present only secondarily due to necrosis, incrustation, or pressure. In our case the symptoms were due to the above enumerated causes and possibly in addition thereto renal back pressure from intravesical obstruction to drainage. tumor enlargement may occur in any direction, thus producing pressure symptoms from the diaphragm to Scarpa's tri-The symptomatology of metaangles. stases gives an entirely different picture, and inexplicable findings suspicious of malignant metastases in any part of the body form a potent argument for complete prostatic and cystoscopic inventory.

Metastases may occur in any organ or Whether conveyed by the lymphatics or blood, the kidney is most frequently involved. The round and spindle-celled are shown to be the most malignant in type. The relatively rare carcinoid-sarcomata are the most vicious since they show greater extension, more rapid metastases, and earlier death than

the other pathologic types. Treatment is futile. Symptomatic relief is the only therapeutic indication. Deep x-ray and radium therapy assuage our consciences and cheer the sufferer. Bumpus prolonged the life of a fifty-nine year old patient for seven years with xray and radium, but the grand average of life duration in all patients after the onset of symptoms was 300 days. bright spot in this gloomy picture is the infrequency of the lesion.

101 EAST 74 ST.

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SUICIDE AS A PREVENTABLE DISEASE

The Committee for the Study of Suicides, Inc., was chartered at Albany recently to make a scientific investigation of the motives and impulses that lead to suicide. The organization, headed by Marshall Field, feels that self-destruction is a preventable disease and this has led to the organization of the group. There are seven psychiatrists and two social workers listed as incorporators; as given in the New York Physician, they are Dr. Henry Alsop Riley, Professor of Neurology and Psychology at the College of Physicians and Surgeons, Columbia Uni-

versity; Dr. Gerald R. Jamieson, Dr. Dudley D. Shoenfeld, adjunct psychiatrist and director of the Mental Help Clinic, at Mount Sinai Hospital; Dr. Bettina Warburg, Dr. Gregory Zilboorg and Dr. Herman Nunberg, all of New York, and Dr. Franklin G. Ebaugh, of Denver. The social workers are Barklie McKee Henry, President of the Association for Improving the Condition of the Poor, and Miss Elizabeth G. Brockett, of New York. Mr. Field will also serve as director.

TRAUMATIC SUBDELTOID BURSITIS

Treatment by Physical Medicine

JOSI PH ECHTMAN, M.D., New York City From the Clinic of Physical Medicine, Mount Smai Hospital

Experience has shown that physical medicine (physical therapy) is the treatment of choice in traumatic bursitis at any stage. In fact the malady is one of those conditions which are most amenable to physical medicine. It seems, however, that not many members of our profession are aware of that fact if we may judge from the 'Queries and Minor Notes' of the AMA Journal of Sept. 7, 1935, where the discussion of the treatment of bursits fails to include this worthy branch of Medicine.

The methods of treatment discussed in this paper have been used by the author at the Mount Sinar Hospital Clinic of Physical Medicine and in his private practice for many years. They have proven to be successful in such a gicat percentage of cases that the author is continced that physical medicine is the treatment of choice in this condition, and should at least be given a chance before

surgery is resorted to

According to Monro¹ (Professor of Antomy of the University of Edinburgh) there are 140 bursae in the body thirty-three in each of the upper extremities and thirty-seven in each of the lower extremities. The bursa, however, most often affected is the subdeltoid* as it was the subdeltoid bursitis that most often came under my care, and was of traumitic etiology. It shall, therefore, he referred to in discussing the treatment which holds good for any other bursitis, usually met with in practice and being of the same etiology.

One has to consider the pathology of the three stages of bursits—acute, subacute, and chronic—for an intelligent approach to its treatment by physical

medicine

Pathology of the Acute Stage

In this stage we deal with an acute in-

flammation, the cardinal symptoms of which, as we know, are rubor, tumor, calor, and dolor When the bursa is located superficially, the first three symptoms have not be detected at all, if the inflamed bursa is situated in the deeper tissues. The bursa is distended by fluid, there is hyperemia and edema of the tissues surrounding it, producing pressure upon the neighboring herve structures. This pressure is a factor in the causation of pain

Treatment of the acute stage consists of cold applications, and galvanization* or ionization with magnesium sulphate

1 Cold applications (compresses) A consideration of the changes in the circulatory dynamics brought about by the increased physiologic process of oxidation that takes place in the acute stage and also of the physiologic effect of the cold compress upon these changes will help to better appreciate the importance of this hydrotherapeutic measure. In the acute stage the oxidation process in the affected tissues is increased This results in increased heat formation The latter is responsible for the increased capillary pressure and edema as shown by Landis and by Drury and Johnes Landis has shown that (as quoted by Wolf3) the capillary pressure in the afternal limb in the skin of a finger is normally thirty-two mm mercury and twelve min in the venous capillars, and that the pressures rise to sixty min and forty five min respectively at a temperature of 42°C Drury and Johnes found that edema formation is two to five times greater at 42° C than at 16° C Macleo I points out the relation between edema and capillary pressure stating that condi-tions capable of causing increased capillary pressure are likely to cause edema. The cold compress causes a decrease in the capillary

^{*}The subacronnal bursa is next in frequency although in reality it is a part of the subdeltoid one if the arm is abducted the bursa is subacronnal, when in contact with the side of the body it (or at least a large part of it) is subdeltoid.

^{*} The suggestion is made that the application of the galvanic current using just tap water without the addition of any medication should be termed galvanization. The definition of the latter is The employment of a galvanic current with the purpose of utilization of the properties of a given pole in diseases. This is distinguished from ionization, the standard definition of which is Ionization or ionic medication is the introduction of chemical ions into the superficial tissues for medical purposes by means of a direct current.

pressure and consequently in the edema, establishing the proper circulation necessary for the relief of pain and repair of the injury. The compress achieves this by reducing oxidation and heat formation, and by creating an optimum temperature. Such a temperature, according to Starr⁵ should range between 36½-37½° C. This temperature has proven to be so beneficial in inflammatory conditions, that Starr has recommended it, and it is being used today successfully,3 in the treatment of gangrene of the foot. It is, however, remarkable to note that (as it has been shown) the temperature of the skin under the compress is also about 36½-37½° C. Thus by applying cold compresses in the acute stage, we are creating those favorable conditions which are necessary for the relief of the pain and repair of the injury.

Technic. The cold applications are carried out in the form of a compress (wet dressing) the technic of which is as follows: two or three folded towels or sixteen layers of gauze are wrung out from ordinary tap water and applied to the shoulder. The compress is held in place by a spica bandage. The patient is instructed to keep it constantly wet and cool by instilling, now and then, some cold water into it; (an ice bag applied upon the compress or directly on the bare shoulder may sometimes be necessary). The compress is changed daily and kept up for about a week or so. Experience has shown that during this time the patient is, as a rule, greatly relieved of his pain, although limitation of motion and other symptoms of disability may still be present.

The therapeutic effectiveness of the wet dressing in combination with massage,⁶ or without*, is so great that it has frequently happened that its employment has not only arrested the inflammatory process, but the patient has uneventfully recovered without any other treatments being necessary. However, not always is this treatment alone sufficient. In stubborn cases (or in order to hasten the relief of pain) the addition of galvanization or ionization with magnesium sulphate is of definite benefit.

2. Galvanization. In order that the reader might realize the mission of this treatment in the acute stage, it is felt that a discussion of the biochemistry of acute inflammations and of the biochemical effect of galvanization upon such inflammations would be in place. In acute inflammations a disturbance in the normal ratio of the hydrogen ion concentration and the hydroxyl (OH) ions takes place in the body fluids of the in-

flammed tissues: the hydroxyl ions increase. This means that the alkalinity rises. Alkali is an irritant, and when present in a relative excess becomes a factor in the causation of pain. Galvanization, according to modern views, restores the quantities of the hydrogen ion concentration and the (OH) ions to their normal ratios. In employing galvanization for this purpose in the acute stage, the positive pole is placed at the region of the injury. This pole possesses the property* of collecting oxygen from which acid** is formed. The acid, as pointed out by Neiswanger,8 replaces the excess of the alkalinity, i.e. the excess of the hydroxyl ions resulting in the restoration of the normal ratio of the two kinds of ions. Favorable conditions are re-established for the relief of pain and repair of the injured tissues.

Technic. A compress is prepared and applied to the shoulder as described above. A sufficiently large piece of blocked tin is placed on the compress, taking care that none of the metal is in contact with the skin. The compress and the metal constitute the active electrode. The metal is attached to the positive pole of a galvanic apparatus. A similarly prepared electrode, which is much larger in size and soaked in warm water, is attached to the negative pole and applied at the region of the neighboring spine, or the patient may sit on it. The current is opened, a straight galvanic current only being used, which is gradually increased to the patient's tolerance. Time: twenty to thirty or forty-five minutes.

Ionization with magnesium sulphate. The author employs the same technic as for galvanization, but, instead of plain water, a solution of one per cent magnesium sulphate is used in the preparation of the shoulder electrode. The magnesium ion reduces edema as pointed out by the author elsewhere. Some workers, including the author, have employed one per cent solution of mecholyl instead of the magnesium sulphate, but the writer has not noticed any advantage of the former over the latter.

These treatments, which shorten considerably the period of the acute stage, are kept up until that stage is over. The following case illustrates the importance of the methods above discussed:

A man of thirty-eight, a laborer, suffered from an acute traumatic subdeltoid bursitis. His physician, in order to relieve the pain,

** Acid, as stated by Neiswanger,⁸ is a sedative, and its presence, too, contributes to the

relief of pain.

^{*}The author has discarded hand massage in his clinic as an unnecessary item. Only on rare occasions is this procedure employed.

^{*} The positive pole is also a vaso constrictor, i.e. it lessens hyperemia. This property still more adds value to its employment in the acute stage where hyperemia is always present.

administered an injection of morphine and applied diathermy to the acutely inflammed shoulder. The patient felt relieved for two hours. The pain then returned with greater severity. The doctor repeated the same treatment. This was done for three days with the result that the pain grew progressively more severe every time the effect of the morphine wore off; and the patient, according to his statement, nearly became insane from the unbearable pain. In this condition he came under our care. In this case wet dressings and even ice bags did not give the desired relief. Ionization with magnesium sulphate was soon added. Because of the severe pain, mecholyl was also tried but did not seem to show any advantage over the simple and unexpensive magnesium sulphate. The pain was rapidly controlled and the condition cured with twelve treatments which the patient received almost daily.

In other stubborn cases, the pain is relieved but the process may go on, giving formation to the second stage, or the patient may present himself for treatment in that stage.

Pathology of the Second Stage

Fibrous adhesions form or are present in the bursa, nearby tendon sheaths and between adjacent muscles. The adhesions cause definite mechanical hindrances to abduction and rotation; and atrophy of muscles and periarticular fibrosis may be forming or present.

Treatment consists of infra-red radiation and massage afternated by ionization with sodium chloride followed by sinusoidalization.

- 1. Infra-red and massage. The patient's shoulder is exposed to infra-red rays* for twenty to thirty minutes. This is followed or accompanied by massage and manipulations to the point of causing no pain to the patient.
- 2. Ionization with sodium chloride followed by sinusoidalization. The sodium chloride on the negative pole because of its ability to inhence the "lytic" (dissolving) action of the latter, has proven to be one of the best treatments for fibrous adhesions. It causes absorption of the latter. The sinusoidal current breaks up the adhesions and serves as a marvelous massage for the muscles that tend to become or are already atrophied.

Technic. The electrodes are prepared and applied as for ionization already described using one per cent warm solution of Na Chl instead of the magnesium sulphate for the electrode placed on the shoulder. This electrode is attached to the negative pole. The galvanic current is brought up gradually to the patient's tolerance for twenty to thirty minutes. After this treatment the electrodes are left in situ, and the galvanic current is changed to sinusoidal with a frequency of twenty interruptions per minute. A very mild voltage is employed at the beginning, increasing it gradually at each seance until a maximum tolerance is reached. The treatment time is started with two minutes and is increased by one minute at each scance until four or five minutes are given. Diathermy instead of infra-red may be employed towards the termination of the subacute stage. If the diathermic heat does not provoke any pain* but disability of the shoulder is still present, the condition has reached the third or chronic stage.

Pathology of the Chronic Stage

This stage presents two varieties: the protracted adherent variety in which x-ray findings are negative, and another variety in which x-ray reveals the presence of calcium deposit and is known, therefore, as calcified (subdeltoid) lumities.

In the former the pathology and treatment are the same as in the subacute stage. It remains for us to discuss the latter variety. Brickner¹⁹ describes the calcification as follows:

It may be as small as a pinhead or so large as to form a cap over the outer portion of the head of the humerus. Its shadow as revealed by x-ray, may sometimes be obscured by the acromion process. The shadow is not due to thickening of the hursa. It is due to lime salt deposit, but the deposit is not in but beneath the bursa, in or upon, or in and upon the supraspinatus tendone.

Others, like Montgomery, a state that "the amorphus masses of lime salts were deposited and confined to the upper wall of the bursa." Fortunately for our method of treatment the exact location of the deposit is immaterial.

Treatment of calcified subdeltoid bursitis. The only treatment employed by the writer with uniform success is diathermy applied to the affected shoulder.

^{*} The application of infra-red radiation causes occasionally a return of the pain. This indicates that the acute stage is not yet entirely over. Infra-red should be discarded and the treatment of the first stage continued for a few more scauces.

^{*} Diathermy causes occasionally a sudden exacerbation indicating that the sub-acute stage is still in its early phase. The diathermy is then discarded, and infra-red ionization continued for another week or so.

Technic. There are two methods; The anteroposterior and the cap method In the former, two metal electrodes of equal and sufficient size (four by five inches or larger) are placed at the shoulder joint, one anteriorly and the other posteriorly, and held in place by a bandage The current is gradually increased to 800 M.A or to the patient's tolerance for thirty to forty-five minutes From twenty to forty treatments may be necessary for a cure. The treatments are given daily or three times a week

The Cap Method. This consists of a capshaped electrode five by six inches or larger, the concavity moulded so that it conforms to the shoulder curve and is the active electrode The inactive electrode consists of a large plate ten by twelve inches applied to the opposite side of the body, its upper border falling about two or three inches below the tendon of pectoralis major. It seems that the diathermic heat exerts a special effect on that lime deposit, causing it to disappear If Roentgenograms are taken after each series of eight or ten treatments, they will show a gradual diminution of the lime deposit, as illustrated by the following case

Mrs M, age 42, wife of a New York physician, suffered from a chronic subdeltoid bursitis. She was treated by her husband for over a year with baking and massage, manipulations, exercises, medication, etc., but without results Her suffering was so great that during that year, she lost twenty-three pounds (usual weight 130 lbs) She was then referred to me The x-ray of the shoulder taken just before she started treatment revealed the presence of a large deposit of lime Its shadow resembled a minia-ture skyscraper She received forty diathermy treatments, during which Roentgenograms were made after each series of eight to ten seances. Each time the x-ray plate showed a diminution of the lime deposit as compared with the last one. The final x-ray plate showed a complete disappearance of the deposit which corresponded with a total disappearance of the symptoms and complete recovery

The methods of treatments discussed here are for non-usppurative bursitis.

Summary

The writer is convinced, judging from the results obtained in the many years of his experience in a large clinic, that traumatic bursitis is successfully treated by physical medicine. The methods of treatment employed are in accordance with the pathological, physiological, and biochemical processes of the various stages of the disease in question.

In the acute stage hydrotherapy in the form of cold compresses and galvanization or ionization with magnesium sul-

phate are employed.

In the sub-acute stage infia-ied followed by massage or ionization with sodium chloride followed by sinusoidalization is used

In the chronic stage, if there is no calcification, the treatment of the sub-acute stage is continued. If calcification is present, diathermy alone was found to excel. A case where the wrong treatment caused great suffering to the patient is reported.

1192 PARK AVE.

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SHALL WE PAY THE EXECUTIONER?

It is coming out that certain states contribute far more in direct payments and in federal taxation to our big government expenditures than ever comes back to them, while other states receive much more than they give New York is one of the states pouring its wealth into Washington to be spent elsewhere Of course in a way this is natural, as New York is a rich state, and our national motto is apparently, "Sock the rich," but it may be pertinently pointed out that among those taxed are the physicians and their patients, and any further schemes for showering wealth around the

country in spectacular projects will entail still heavier levies. Among the plans on the horizon is state medicine, bound to entail heavy cost If it goes over, the doctor will have the pleasure of putting his hand still deeper in his pocket and actually paying the expense of undermining his own practice and turning the profession into a brigade of medical orderlies, to run here and there as sent by their superiors is the custom in some countries to make the condemned dig their own graves, but at least they do not have to help pay the expense of the execution.

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APPENDICITIS

A Study of 596 Consecutive Cases

FRIDERIC W BANCROFT, M.D., New York City Eric R Sholuda, M.D., New York City

General statistics in this country and in other countries show a high mortality rate for appendicitis whether operated or not. This rate is mounting. At the present time our statistics compare unfavorably with European statistics. With this thought in the brekground, and a desire to find out what actually might result as possible complications of the operative treatment of appendicitis this study of the complications of 596 appendictionies was mide.

It was felt that for the study to be worthwhile, we should have at least five hundred cases. In reviewing the operations at the Fifth Avenue Hospital, we found that if we took all appendectonies done from September 28, 1928 to January 2, 1933, we would have available for our study a total of 596 consecutive cases, of which 350 were acute and 246 chronic cases.

In order to establish some definite limitations as to cases to be included in the series, it was decided to discount those cases in which the appendix was removed in the course of another operation explain further, if an operation was performed for the removal of an ovarian cyst and a normal appendix was taken out in the course of the operation this case was not included in our study However if an operation was done for a dormant or acute appendix, and an ovarian cyst was removed in the course of the appendectomy, such an operation would be included in our study other words the primary pathological condition decided whether the case was to be included

It is readily seen in Table I the acute cases offer the vast inajority of the complications. Infection and hematomata of the wounds were in the main the only complications of the chronic cases. In all probability they were due to less care in protecting the wound edges during the removal of the appendix and the stump inversion, and more retraction on wound

edges with resultant trauma due to ab dominal exploration

The acute cases were then analyzed and comparative results in other institutions obtained. In our cases there were only 15 deaths. This is only 25 per cent of our total number of cases. These deaths all occurred in acute cases giving a percentage of about 43 mortality in our acute cases. This compares favorably with that in other institutions. (Table II.)

Age was seen to be a definite factor in mortality (Table III) Childhood and oldage pay the heavest toll. Our figures correspond to those of Finicy³ and others

Gross pathological classification from the description of the operator at the time of operation is indefinite due to the difficulty in recognizing the entire pathology thru a small meision and to the personal element since our cases were not all operated by the same surgeon We have followed the classification used by Bancroft in his New York Hospital report We were concerned first with the pathology of the appendix itself and secondly with the reaction of the peritoneum (Table IV) The latter group consisted of four subdivisions (a) Acute inflammation of the appendix without reaction of the adjacent peritoneum, (b) with free fluid-the cases in which serum or cloudy fluid escapes on entering the peritoneal cavity, but in which there is

TABLE I COMPLICATIONS AFTER OPERATION

Complication	Cl rome	4	7
	Citome		I ota
Infected wounds	17	15	32
Hematomas	18	11	29
Ser m	0	4	- 4
	0	2	,
	2	10	12
	1	- 5	• 6
_	1	ž	3
Secondary pelvic abscess	Ď	4	7
Subphrenic al seess	ň	7	
Intra abdom nal abscess	ä	i	- 4
Fvisceration	ň	;	•
Intestinal obstruction	ĭ	1	,
Paralytic ileus	à	à	- 2
l mbolism	v v	4	- 2
Phleb tis	ŭ	i	3
Massive collapse of lung	ŭ	1	1
Fical fistula	ū	1	1
Creculatory sell-	ū	3	3
Circulatory collapse gastrectas	is O	1	1

TABLE II .- MORTALITY RATE IN VARIOUS HOSPITALS

Author	Hospital	Cases	Deaths	Per Cent
Garlock ¹	Fifth Avenue Hospital	350 304	15 17	4.3 5.5
Christopher &	Jennings ² Evanston, Ill	1138 1804	47 91	4.13 5.0
Finney ³ Bancroft ⁴ McClure ⁵	New York HospitalFord Hospital	584 940	25 61	4.2 6.5

The figures used were either as given by the authors or were compiled from data given in their reports.

no general peritoneal reaction; (c) acute diffuse peritonitis; (d) with abscess formation.

The peritoneal classification was further studied as to mortality and again a comparative attempt was made with other reports (Table V). For this purpose, we had available the work of Bancroft and of Garlock, both done at New York Hospital. Garlock did not differentiate the cases without adjacent peritoneal reaction, from those with free fluid, so we were unable to make a perfect comparison.

TABLE III.—MORTALITY BY DECADES

Age:	No. of Cascs	Deaths	Mortality Per Cent
0-10 11-20	78 117	4 2	5.1 1.7
21–30	80 38	2 0	2.5
41–50 51–60	16 14	2 2 2	12.5 14.3
61–70 71–80	6 1	2 1	33.3 100.0

	FINNEY-UNION	MEMORIAL	Hospi	TAL ³
0-10		193	12	6.2
11-20		544	10	1.8
21-30	• • • • • • • • • • • • • • • • • • • •	432	10	2.3
31-40		292	12	4.1
41-50		167	13	7.7
51-60		115	15	13.0
61-70		45	10	22.2
71-80		15	5	33.3
81–90		1	1	100.0

There were three additional deaths with age group

	BANCROFT—NEW	York	HOSPITAL4	
0-10 11-20		65	7	10.9
21-30	**********	201 182	5 2	2.4 1.1
31-40 41-50	• • • • • • • • • • • • • • • • • • • •	83 43	7	8.5
51-60	*********	43 6	2	2.3 33.3
61-70	• • • • • • • • •	4	1	25.0

TABLE IV

Classification of Appendiceal Pathology	
Nonadherent	147
Aunerent	119
Gangrenous	78
D-4	35
	51
Reaction of Perstoneum	
With Reac Fluid Peritoneal Reaction	129
	136
Acute Diffuse Peritonitis With Abscess Formation	19
Total and the state of the stat	46

We next studied the most important of our immediate postoperative complications with concern as to the frequency of occurrence and the mortality. Intestinal obstruction was found to occur in only two of our 350 acute cases or 0.5 per cent. Our fecal fistula per cent occurrence was unusually low when compared with other records

There has been everywhere so much controversy as to whether to drain or not that we felt it would be advisable to give some data as to complications in drained cases as opposed to non-drained. (Table VII).

The complications were more numerous in the drained cases. This is not meant as a criticism for it happens that the drained cases were the more advanced cases in our series. The average drained case spent 21.1 days in the hospital while the average non-drained case was hospitalized 12.4 days.

Discussion

On reviewing our statistics we noted that acute cases constituted more than fifty-seven per cent of our cases and that of these acute cases fifty-seven per cent were sufficiently advanced to show anything from free fluid to abscess formation. We also noted increased mortality in the more advanced cases. Cases with abscess formation showed a lower mortality per pent than those with diffuse peritonitis.

The drained cases which in our series were practically entirely the more advanced cases showed more complications and required longer hospitalization.

Conclusion

Surgical and economic results require early recognition of appendicitis, and immediate operation. Any delay increases the risk and prolongs the patient's convalescence.

16 E. 90 St. 61 E. 87 St.

TABLE V -- MORTALITY ACCORDING TO PERITONEAL REACTION

		Fifth Ace Hospital		Bancroft*		Garlock ¹				
		No Cases	Deaths	Per Cent	No Cases	Deaths	Per Cent	No Cases	Deaths	Per r Cent
Without adjacent perstoneal re- With free fluid	action	129 136	n 5	3 6	216	2 5	0 S	245	2	0.7
Acute diffuse peritonitis With abscess	•:	19 46	8	42 0	73 133	13	17 R 4 3	21 36	10 5	43 13

TABLE VI — IMMEDIATE POSTOLERATIVE COMPLICATIONS

	No of Cases	Occurrence Per Cent	Deaths
Pneumonia	10	2 9	a
Pelvic abscess	4	11	2
Subphrense al seess	1	2	0
Paralytic ileus	2	5	'n
Fmbolism	ï	2	1
lecal fistula	3	8	1
Massive collapse of			
lunt	1	2	Ø
Intestinal obstruction	2	Š	2
		-	

TABLE VII — COMPLICATIONS IN DRAINED AND NON PRAINED CASES

	Drai	ned A	on Dr	aine i
		Per		Per
	Λo	cent	Λo	cent
Infected wounds	12	10 5	3	26
Hematomas	- 2	16	9	7.8
Secon lary abdominal abserve	5	4.6	ı,	0.8
Intestinal obstruction	į.	0.8	1	0.8
Paralytic ileus	2	16	0	(t
l ecal fistula	3	26	0	0

References

1 Garlock J II Am J Surg ns 23 248, 1934 Am J Surg, 89 282 1929 2 Christopher, 1 and Jennings W K Am J Surg ns 18 16, 1932 3 Finney, Jr., J. M. T. Am. J. Surg. n.s. 20 772, 1933 Surg. G.m. am. I. Obs. 56 360, 1933 4 Bancrott I. W. J. A. M. A. 75 1635, 1920 5 McClure R. D. Ann. Surg., 94 203, 1931

Dr. Harlow Brooks of Manhattan will deliver a lecture at the Aurora Institute, Morristown, N J on April 5, 1936 at 4 P M The subject will be Angina Pectoris This is the second of a series of lectures on Practical Chincal Medicine to be given at the Institute

A NEW FIND IN IMMUNITY

A new method for preparing vaccine against deadly bacteria, which promises to open up an entirely new field in immunity against diseases for which so far no vaccine exists, is announced in a preliminary report in the current issue of Science, official organ of the American Association for the Advancement of Science

The new method is based on the discovery that by treating bacteria with ketene, a gas obtained from acetic acid, contained in singar, the bacteria are made completely barneless, and then can be used as an effective vaccine against that bacteria

When these ketene-treated bacteria are injected into animals, it has been found, they render the animals completely immune against lethal doses of living bacteria Other animals not so immunized all died without exception.

The report is presented by Dr Joseph T. Tamura, becteriologist, and Dr M J Boyd, biochemist, of the College of Medicine, University of Cincinnati

IT'S THE KINKS THAT COUNT

A perfectly normal person would be unspeakably dull, according to Dr Earl D. Bond, Professor of Psychiatry at the University of Pennsylvania, who outlined his views before the Monroe County Mental Hygiene Society in Rochester a few weeks ago. We are all "a little queer," he thinks "Most of us have nervous symptoms,

"Most of its have nervous symptoms, fears and prejudices which indicate that we are not quite as normal as we might suppose," he said "Take the so called model child, for instance He is obedient and well behaved That's his behavior Actually all individual activity has been squelched out of him, and unless some effort is made to remedy the situation, he'll develop into a dull adult"

TO PAY CLINIC DOCTORS

The movement in New York City to secure pay for physicians serving outpatient departments of the various city hospitals has resulted in the submission of a bill providing for their remuneration to the Municipal Charter Revision Committee by the county medical societies of the metropolitan area Di Goldwater, Commissioner of Hospitals, is said to approve the plan and it is reported that a fee schedule of \$5 per clinic session per doctor has been presented to Goldwater and there is great likelihood that an appropriation on this basis will be made in the next budget

NEW YORK

STATE JOURNAL

OF MEDICINE

Published Semi-Monthly under the Auspices of the Journal Management Committee

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Executive Office: 33 W. 42nd St., N. Y. Business and Advertising Manager....Thomas R. Gardiner

The Editors endeavor to publish only that which is authentic, but disclaim any responsibility for views expressed by contributors. Address all communications concerning the JOURNAL to the Editorial Office, 33 W. 42nd Street, New York City (Telephone CHickering 4-5570).

EDITORIALS

An Unfortunate Omission

The state government, which has taken the lead in many highly commendable medical reforms, nevertheless lags sadly in utilizing the full resources of organized medicine for the public good. Only recently the position of Director of Health and Physical Education in the Department of Education was filled without regard for the judgment of the New York State Sanitary Officers' Association, the New York State School Physicians Association, the State Health and Physical Education Association, the New York Teachers Association, and the Medical Society of the State of New York. The interesting and valuable report of the New York State Commission on State Aid to Municipal Subdivisions suffers from a similar lack. Although the Commission investigated many activities of a medical nature, such as state aid for health and school medical service, not one of its six members was a physician or qualified by experience to evaluate medical needs or the performance of health services. The same is true of the six members of the Commission's research staff.

This is no criticism of the report itself, which covered important ground and made some highly pertinent criticisms. In fact, many of the Commission's observations on inefficiency and extravagance in the administration of relief and the

demoralizing effects of dependence on government reinforce the profession's arguments against state medicine.

Aside from the context of the report itself, however, and regardless of the undoubted integrity and ability of the Commissioners in their respective spheres, it is a grave mistake for the government to ignore the counsel of the reputable physicians of the state in medical matters. The S.C.A.A. had a definite influence in framing the welfare features of the report. Surely the views and experience of organized medicine are entitled to equal weight in health questions.

It is true that most of the large welfare organizations have adequate full-time staffs and can lend active assistance to such investigations. If this has any significance, it is that organized medicine, too, must develop full-time workers charged with the protection and advancement of the doctor's interests. Under any conditions, however, the state should recognize the supremacy of the profession in medical affairs and give the physician due representation on all projects directly or indirectly touching health services.

A Blow at Quackery

Senator Feld apparently realizes that few battles are won with the first shot. Undiscouraged by the defeat of his original bill, he has introduced another measure to cut off the sustaming advertising of quackery. The new Feld Act not only forbids physicians to advertise for patronage but subjects them to disciplinary procedure for employing or cooperating with unheconsed practitioners.

These are two well-directed blows at chirchtanty. No quack can build up a following without publicity, and the Feld Act closes every channel of publicity to the physician except the unpaid personto person endovenient on which the reputations of reputable practitioners are built. The medical mountebank leans heavily on advertising to counterbalance his lack of merit. Remove this prop and the structure of quackery is doomed to fall.

The costs of the extensive advertising in which the modern quack must engage to attract a clientele necessitates a vast volume of business. To braidle this, "mass production" methods are neces sary In many of the more successful institutes of charlatinry, the medical pro prietor is assisted by so called "doctors" who rely on the license of their employer to shield them from the charge of illegal practice Some of these "doctors" are medical graduates who were never licensed or who lost their permits for statutory infractions Others are undergraduates who were forced to leave medical college for some reason or another before completion of their course Still others rely solely on a white coat and glib tongue To cut the master quick off from the services of such assistants. would seriously impair the volume of work required to carry the heavy overhead of quackery

There is nothing in the Feld bill that would restrict the prerogatives of reput able physicians, deprive the public of any essential service or deplete the legitimate revenues of honest advertising media. If anything, it would rid the responsible practitioner of unscrupidous competition and protect the ignorant and gullible layman against exploitation. The Legislature can demonstrate its loyalty to high standards of medical practice and the public

health by prompt enactment of Senator Feld's new measure

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Another Aspect of Coronary Sclerosis

The knowledge of the pathology of coronary sclerosis continues to be augmented by the newer studies in the field of atherosclerosis. The descriptions in text books are based largely upon the postmortem material obtained from patients who had been hospitalized for some time. In such instances secondary changes already have made their appearance and it is these that Leary believes have obscured the true picture of coronary sclerosis.

His observations are based upon pathology found in patients who have "dropped dead" and so come under the jurisdiction of the Medical Examiner's office These cases represent, in the majority of instances, people who never have been sufferers from cardiac distress and also those who had had no prior attack of coronary occlusion. These early or primary processes present at first a deposit of free lipoid beneath the arterial endothelium This is followed by the appearance of pliagocytes and an increase in the thickness of the fibrotic layer. Since this new tissue derives its nutriment from the blood flowing through the lumen of the artery, necrosis of the most distant portions of the intimal tissue occurs. This is accompanied by fat deposits and lymphocytic infiltration which lead either to thrombus formation or to sudden death by occlusion of the lumen

Leary feels that atheroscierosis of the coronary arteries is a metabolic disease Cholesterol is one of the important lipoids found in the body and is derived from the impostion of this substance as such rather than as the result of a process of synthesis Cholesterol is a prime requisite for rapid cell division and acceleration in growth and consequently is needed mostly during the embryonic stage and in early infancy. Thereafter it is not an essential

¹ Leary, \(\Gamma\) Amer Heart Jour , 10 328 1935

for body growth or maintenance. Man is the only mammal who, throughout life continues to ingest milk and eggs, both of which are high in cholesterol content and represent the foods which early growth necessitates. While it is true that the human fetus has no yolk, the increase in blood cholesterol during pregnancy replaces this for the furtherance of embryonic growth.

Atherosclerosis can be reproduced in rabbits by feeding cholesterol to them. These experimental findings are corroborated by reports from the Joslin diabetic clinic² which show that atherosclerosis and xanthomas are of less frequent occurrence when patients receive a diet low in cholesterol containing fats. The import of Leary's observations is very great since it suggests the possibility of coronary sclerosis being added to the list of preventable diseases.

New Theories on Gastric Ulcer

The exact factor responsible for the formation of gastric ulcers is still unknown. Many theories exist which would account for their mode of production. It is for this reason that no definite procedure for the treatment of ulcer of the stomach has been determined. Some ulcers respond favorably to dietary measures while others do not. Recurrences do follow adequate surgical removal of preexisting gastric ulcers. Furthermore, gastris surgery yet remains a serious undertaking.

The report of Volini and McLaughlin¹ anent the most recent type of therapy for gastric ulcer which has been advanced is of extreme interest because it furnishes us not only with results but also with sound reasoning based upon work performed. Of seventy-three patients who were treated with histidine monohydrochloride, seventy-nine per cent were improved clinically while the remainder were not. They cannot account definitely for the

manner in which their favorable results were obtained. By means of experiments conducted with rats, they were able to produce ulcers by the repeated injections of histamine dihydrochloride, but, when the animals had prior injections of histidine, ulcer formation did not follow the administration of histamine.

These observers devolve an interesting theory from their work. They allege that peptic ulcers are the result of excessive stimulation by histamine which reduces gastric acidity and perhaps also peptic activity. They do not overlook the possibility that the injection of histidine may produce a histaminase which would inactivate histamine in its destructive action.

These theories possibly could account for the changes observed in the physical characteristics of gastric secretion which are noted in the presence of peptic ulcer. The use of amino acids as therapeutic agents presents new potentialities which cannot be overlooked without intensive investigation as to their merit.

CURRENT COMMENT

From the January 1936 issue of Hospitals we quote Dr. J. J. Golub, Director of the Hospital for Joint Diseases in New York City. "The hospital has the added responsibility of sharing in the community's efforts to lessen social degeneration. Its achievements in that direction are no better than its understanding of and active participation in the community's welfare, and above all, its own conception of the possibilities of service. An understanding of the community and the individuals in it broadens the hospital concept and weaves it more effectively into the fabric of community life, needs, and responsibilities. * * *

It is becoming complete in that it attempts to embrace all known phases of health service, and it is a community health center in that it is the product of communal, social and medical thinking and planning—satisfying the special needs of the community."

IN THE Bulletin of the Bronx County Medical Society of March 1936, under the title "Medical Economics" Dr. Nathan B. Van Etten writes, " * * * Scientifically, medicin is glorious, economically it is im-

^{1.} Volini, I F, and McLaughlin, R. F. III Med Jour, 69 39, 1936 2 Year Book of General Medicine, Chie, p 551, 1935.

provident. Living in an industrial age it makes little effort to learn from industry practical methods for spreading the knowledge of its potentialities. Hiding its light under obscurant ethics, because of fear of commercializing individual abilities, screens from publicity much knowledge of great popular value. Membership in a profession seems to have caused the physician to forget that everything in this country moves to the tempo of industry. * * * It cannot be denied that the workers in Organized Medicine have been retarded in their work by a very large number of physicians who are so indifferent to their own welfare that they do not take the trouble to attend the meetings of their County Medical Societies, but, while being entirely uncooperative, do not hesitate to revile their officers for involving American Medicine in an economic crisis. It cannot be denied that conservative doctors, indifferent doctors. lazy doctors, unethical doctors, socialistic doctors, communistic doctors, doctors of Public Health doctors of philosophy, are all taking a shot at Organized Medicine. * * * In the light of debasing foreign experience with State Medicine and in the light of our own experience with political bureaucracy, the physician who respects the high calling of his profession must meet the threat of an extension of State Medicine as a militant fighter for the maintenance as well as the elevation of his ideals. It will be a backward step into chaos if the Department of Labor of the United States should succeed in imposing upon the Medical profession codifications such as those which have created such confusion in industrial and agricultural production. * * *

"* **. His age old experience and his education qualify the physician to meet a changing world and should qualify him for wise leadership of its evolution. The future of medicine challenges him. If he becomes indifferent, selfish, lazy, socially uncooperative, he will write a sad chapter in medical history; if he becomes alert, awake to his opportunities to meet the new daily demands of the American people and give the most faithful service, the service of personal devotion to the science and the art of medicine, his glorious traditions will be multiplied * * *"

"Mechanization has brought new and vicious health hazards. But, as many have overlooked, the benefits, too, have been great, and the future possibilities are even greater. As we foresee developments in machinery we can anticipate the elimination of man as much as possible in the production of material involving hazardous exposure. Study of the correct type of ventilation to

be installed at the point of generation of poisonous gases and harmful dusts will cut down the main causes of ill health among workers.

It has been the premise of the industrial hygienist that if we can eliminate dust, funnes, and gases from the atmosphere of the shop, we shall come very near to the goal set by Sir Herbert Samuel, when he said, 'there should be no such thing as industrial disease possible.' The above is from an article in the Columbia Alumni News of March 6, 1936, by Frederick B. Flinn, PhD., associate professor of physiology in industrial hygiene.

From the Supplement to the Bulletin of the Bronx County Medical Society we quote two of its Timely Brevities, "Most of the propaganda for state medicine was inspired by the depression years. Yet the medical profession did not cause the depression. Government and industry must answer for that. Let government and industry seek a cure for the financial ills of this country! Let them set their own houses in order! When they have done so, many of our other problems will be found to have taken care of themselves."-"If vivisection is to be abolished it would be entirely within the keeping of the medieval spirit that brought it about to abolish, also, all facts learned by vivisection. That extreme would be no greater than the law which was introduced by antivivisectionists into the Illinois State Legislature several years ago. According to the strict interpretation of this law, any physician who gave a patient a drug for the elimination of a tapeworm would be guilty of a misdemeanor. Even a tapeworm has his rights!"

"Medicine is just now in a state of metamorphosis. Within a few years our present conceptions of bacteriology will undergo radical changes. Men and women in many laboratories are fervently conducting researches to conquer cancer and other scourges. To stay those eager hands now would be as damnable racially as is a criminal abortion individually. This controversial attitude is not prompted by any selfish motive. The physician's own economic status is subordinate. This vital problem is of national importance.

Governmental regulation of medicine is inherently unthinkable and must inevitably prove unsound. The covetous politician has no place in our realm. We do not live in the same world. If we suffer him to gain control of our system he will tincture the whole fabric with his disastrous schemes and futile mal-administration. Such incongruity seems monstrous. ** * When the physician is relegated to an ancillary rank, when his

liberty of independent action is restricted, his life grows insipid and he becomes a pathetic puppet. Magisterial supervision involves unwarranted controlment. Exploitance smothers altruism. Despotic sway is democracy without liberty. Subordinate cooperation of laymen with medical society beneficences would be conducive to health welfare, but civil dominance would mean chaotic disorder in this critical period of our national emergency."—J. A. Hagemann, of Pittsburgh, Pennsylvania, writing in the Medical Record of March 4, 1936.

THE EDITORS OF Today under date of March 7, 1936, comment to the effect that "The Pure Food and Drugs Bill, badly mangled after three years of battering, may yet be pushed through near the end of the session. It passed the Senate last year. Representative Sam Rayburn is now trying to find out whether it is worth passing. Some of the experts would rather let it die and start fresh with a new bill in the next Congress."

THOMAS PARRAN JR., M.D., state commissioner of health, spoke on February 25 at the annual meeting of the New York Tuberculosis and Health Association. From the *Health News* under date of March 6, 1936, we read that, "He described the signing by President Roosevelt of the bill appropriating money with which to launch the

social security program as one of the most significant events in the history of public health in this nation. He warned, however, that too much is not to be expected from the health measures which can be carried out under the present social security act since they represent only the first steps toward health security of a people who are at last beginning to realize what they need. He said, 'In public health work we stand today just about where we were in public education in the middle of the last century. I hope that in our attempt to provide good health for everyone we may avoid some of the blunders which characterized our effort to make education available for all, through measures more generous than they were discriminating. * * * In conclusion, Doctor Parran emphasized the necessity of caution in working out the national health program -the effort that will be required to avoid potential evils arising from lack of ex-perience, lack of vision, and the tendency to partisanship. * * *

An OLD OPINION couched in slightly different terms, to wit, that: "Congress is decidedly careless about ordering new investigations without checking on what it has already authorized. Either the work has been done before, or a new agency is set up to do it when there are already others in the field." From the Saturday Evening Post, March 21, 1936.

Society Activities

Post Graduate Lecture Courses

Doctor K. R. McAlpin addressed the Greene and Columbia County Medical Societies on the subject of "Pernicious Anemia" on March 3, concluding a course on general medicine given to these Societies by the Committee on Public Health and Medical Education. Doctor McAlpin's talk was regarded as very excellent by the members of these Societies. Judging from the attendance and the attitude of the men in these two Counties, it would seem that the plan of giving a course jointly to the two Societies, recently made possible by the construction of the new bridge over the Hudson River, is practical and satisfactory and it will probably be used in the future for other County Societies similarly located.

On March 4, Doctor S. Potter Bartley lectured to the Sullivan County Medical Society, in Liberty on the "Diagnosis and Treatment of Injuries of the Knee Joint." General comment from the members of the

Society was that he gave an excellent talk which was very instructive and well-received.

Doctor Harvey B. Matthews spoke to this group on "Breech Presentation" on March 11, and at this lecture the custom was inaugurated of distributing, when possible, mimeographed abstracts of the lectures to those attending the meetings, in order to give more permanent value to the course. Doctor Matthews was well received by the Society, and his talk was regarded as most instructive and interesting.

On March 18, Doctor Robert Barber spoke to this group on "Vascular Diseases of the Extremities," and on March 25, Doctor George Roberts on "Recent Advances in Therapeutics."

A course on General Medicine is being planned for the Chemung County Medical Society to be given on Wednesday evenings during April and early May, in Elmira.

Annual Reports

MEDICAL SOCIETY OF THE STATE OF NEW YORK

1935-36

REPORT OF THE PRESIDENT

To the House of Delegates, Gentlemen

At the close of the term of service, I beg leave to render the customary report of stewardship. The past year has been characterized by many developments, the most noteworthy of which is the definite improvement in conditions in general, which has resulted in a decided lessening of the apprehension so increasingly prevalent during the list years. While this increased cheerfulness is still tempered to a degree by the remaining uncertainty concerning social unrest and the financial policy of our government, the frame of mind of our people is however definitely better, and they are in consequence the more able to assume the duty of help in

the shaping of our destinies

What applies to the nation, applies to our Society as well. In medicine as in all else, greater optimism is apparent everywhere, and more energy in the direction of development and progress is the result In like spirit your officers, standing and special committees, as well as all others serving your Society, have done their work efficiently and cheerfully, and fully deserve my commendation and your ap preciation and gratitude. It serves no purpose to review the details of their labors as all evidences of these appear in the reports submitted to you at this time In no instance of which I am aware, has an assumed or assigned task had anything but close attention and wholehearted efficient service. It must be remembered that such service is in many instances very time consuming and thus at the direct expense of those rendering it The Special Committee on Workmen's Compensation Procedure may well serve as an example For over five months at frequent and long sessions, a group of seven teen sat to adjudicate the Tee Schedule. your representatives being the only noncompensated members of that body.

though burdened with statewide responsi-

bility to the profession

A review of the administrative activitics of the Society during the past few veirs indicates an example of modern trend toward increased efficiency with all possible economy, doubtless stimulated by general conditions of world affairs Changes in the publication and management of the Journal and Directory, management of the Technical Exhibits, management of the Malpractice Indemnity Insurance Group Plan, establishment of the Burcau of Public Relations, etc. were all undertaken with one or other or both these aims in mind only, namely, betterment with all possible economy Such changes, radical in nature as they often have to be, are rarely accomplished without some error and misunderstanding These are probably announg for the time but trifling as a rule, compared with the advantages gamed In these instances most of the error was based on misunderstanding, and the rest will disappear by elimination Conservative estimate has every indication that some of these former liabilities of the Society will become assets of no mean value in relatively few years Again you have been, and are being served by men of talent, without reward

Annual reports to the House of Delegates in recent years, as well as frequently expressed opinions of various observers. would seem to indicate an overlapping in the functions of some of the standing committees, and probably duplication of expense It has been apparent for some time that there is a lack of coordination of these activities largely due to the structure and method of functioning of the executive body representing this House between sessions My predecessor, in his report at the last session of your body advocated a full time executive, certainly in part for the purpose of creating such desirable coordination, which matter was referred to the Executive Committee for study. The thought is also prompted that over-organization may exist owing to the cumulative zeal of successive administrations.

For these various reasons it is quite probable that the present structure of the administration of the Society could be revised in the interest of greater efficiency with lessened expense if possible. For the purpose of a broad study of all these questions, the Executive Committee authorized the appointment of a Committee on Organization, to report to this House of Delegates. Attendance at one meeting, by courtesy of the Committee, was sufficient for the conviction that many improvements in the interest of efficiency and economy can be had. In any event, it is a most important matter which merits your closest attention and best possible judgment. Since any radical alterations in a reorganization plan created by this House will require changes in the Con stitution and By-Laws of the Society, there will be ample time for mature de liberation before they can be enacted.

In this connection it may be well to call attention to other procedures which experience teaches might be subject to revision.

Under the By-Laws the budget and all other expenditures recommended by the Executive Committee, must have the approval of the Board of Trustees to become effective. In practice, all requests for appropriations are presented to the Executive Committee, then subject to discussion concerning the need and the amount, which is followed by a simple recommendation to the Trustees. The Trustees in turn, usually with little more than the brief reference at hand, agree to it, or reduce the amount appropriated, or refuse to make an appropriation. Since the purpose of their approval would logically seem based not only on the ability of the Society to meet the cost, but also on the desirability of the expenditure contrasted with the cost, it would seem desirable that they should have at least the same information relative to the matter as that presented to the Executive Committee including the discussion concerning it, on which the recommendation rests.

Under the By-Laws, no Committee shall inaugurate or initiate any policy, or commit the Society unless expressly approved by this House, the Council or the Executive Committee. In this rule there is no provision relative to the Committee on Legislation, which frequently violates it on account of the lack of time to observe it. While such action is safeguarded by the authorized Advisory Committee and the County Legislative Committees, a better provision in the By-Laws might be considered. The same may be said in a way of the Committee on Medical Research. While it receives instructions from this House from time to time relative to legislation concerning animal experimentation, its specific action is often the matter of a moment at the time of a legislative hearing or on a similar occasion. While no safeguard would seem required, a By-Law provision may well be made.

It happens from time to time that differences of opinion occur between a County Society Committee and a State Society Committee having similar functions. The new provisions of the Workmen's Compensation Law which impose duties on each County Society, may lead to definite differences between them, which may easily produce an unfortunate impression on the public to the detriment of the profession. While the By-Laws provide the means to prevent conflict in Constitution and By-Laws as well as in opinion relative to proposed legislation, there are no regulatory provisions otherwise or methods of adjudication indicated. It would seem in the interest of the profession that more definite central control might be established to advantage, in a way this House might direct after careful analysis. Again the thought is prompted that over-organization may exist.

Repeated references to the justice of proper remuneration for professional services rendered in hospitals, the increasing efforts by some hospitals to actually practice medicine on their own account particularly in workmen's compensation and obstetric cases, and general evidences of dissatisfaction as expressed by the proposed Crawford bill of several years ago to prohibit any charge to patients in dispensaries, and the Moran bill of more recent date, to limit hospital charges to bed, board, and nursing, are sufficient evi-

dence of definite breach of understanding between hospital authorities and the medical profession. Official conferences of outstanding representatives of the profession with similar representatives of important hospitals, and possibly welfare and public health interests as well, would seem a logical plan to bring about in adjustment of existing differences, more equitable perhaps thin by arbitrary laws causing resentment and leading to evasions. Thought might well be given to the subject in the hope of evolving a plan to find a solution for the evident dissatisfaction which exists.

The Public Relations Bureau established by the Committee on Trends, is quite in keeping with the purposes of the Society as expressed in Article 1 of the Constitution, namely, "to enlighten and direct public opinion in regard to the problems of medicine and public health" Its functions are as much what not to

print, as to make public in digrified and interesting manner what the public should know in its own interest. The value rendered and to be rendered in this way is not necessarily apparent, but can easily be learned by conference with the Director and the perusal of his scraphook. It is to be hoped that when completely established and in full working order, it will serve every arm of the Society throughout the State.

In closing, allow me to again expressing admiration of all who serve the Society, and of the cheeful, self surficing and efficient manner in which this service is rendered. May I add my personal grateful thanks for their courtesy, kindness, and understanding which has made my task so simple and pleasant.

Respectfully submitted, Frederic E Sondern,

President

P16 March 1, 1936

REPORT OF SECRETARY

To The House Of Delegates, Gentlemen

For the eleventh time your Secretary has the honor of presenting to you his annual report. Although during these years his duties have greatly increased the burden has been lightened by the inspiring thought that between him and the membership there existed a mutual feeling of cordial respect and friendship

The Society

The constant and stendy growth of the Society in membership and activities has continued and that this growth is a healthy one is evidenced by the interest in and criticism of the various activities. The slowness of this growth and the expressed wish of many to investigate before adopting are manifestations of its soundness.

Three important changes in the conduct of the Society's affairs have been made during the year. The duties of the Publication Committee have been taken over by the Committee on Journal Management, the plan of Group Insurance changed and the provisions of the Workmen's Compensation. Law brought to a practical consummation.

Although no vicious or prejudicial legislation detrimental to the interests of

the Profession has as yet been emeted many threatening clouds exist and a militant attitude must be preserved and the old complacency done away with Foes exist both without and within our ranks and it is your Secretary's opinion that every member should realize that it is his fight and that unity and solidarity in thought and action are the only means of preserving the integrity of the Profession and holding it in the high place which it has attained, ever remembering that "Eternal vigilance is the price of liberty"

The Society's Office

It is stud that "variety is the space of life" and your Secretary realizes that even in a prosace report repetition may be thought tiresome, but he also realizes that refreshment of memory is an absolute necessity, their fore, let him again say that the location of the General Administrative Offices is at 2 East 103rd St, New York City, the Legislative Bureau is at 100 State St, Albrin, and the office at 33 West 42nd St, New York City, is that of Thomas R Gardiner, Business Manager for the Journal and Directory Official communications sent to the Secretary should be addressed to the Administrative Offices

These Administrative Offices house the Secretary's competent and efficient office staff of seven regular clerks and stenographers with occasional extras when the work gets heavy. Few if any of this staff could be readily replaced. The staff is under the immediate guidance and control of Miss L. D. Baldwin, the Office Manager, whose efficient management, wonderful grasp of details and knowledge of the Society's affairs past and present are of incalculable value not only to the Secretary but to the Society in general.

Financial Department

The Secretary has no comment to make regarding this Department of the Society. It remains in the same capable hands as at the last report.

The Treasurer and Board of Trustees should receive the thanks of the Society for the able and efficient manner in which the finances have been handled during these days of stress.

Legal Department

Another Department worthy of appreciation and all commendation is the Legal Department. Mr. Lorenz Brosnan who for the past few years has successfully defended our members in malpractice suits and whose sound judgment and legal ability has guarded the Council and Executive Committee against errors and pitfalls continues in charge of this Department ably assisted by Mr. Thomas Clearwater, our attorney. No task has been too difficult or problem too deep for him to tackle and he has never failed those who have had occasion to call upon him for advice.

The Secretary acknowledges thanks Mr. Brosman's assistance and advice and his never failing courtesy.

District Branches

Although your Secretary has not been able to personally attend the District Branches he has followed with keen interest their proceedings and progress.

Some years ago in addressing the Conference of State Secretaries in Chicago he laid particular stress on the advantage to the membership of the social aspects of their meetings and the opportunities given to meet old friends and neighbors. Nothing has occurred to change this opinion and he still feels that the scientific programs are secondary to the opportunity afforded for the getting together of friends and acquaintances and the enthusiasm inspired by these contacts.

Secretary congratulates Branches on the excellence of their choice for officers. The present Councillors are in his opinion second to none that have ever held office.

The attention of the County Secretaries is called to a remark made by one of the Branch Presidents; "I know it is my duty to visit the county societies in my Branch each year and examine into the condition of the profession in the County but how can I do this when these societies never notify me of when and where their meetings are going to take place." Your Secretary hopes that the County Secretaries will bear this in mind and assist the Councillors in carrying out their duties.

The Annual Conference of Secretaries and that of Legislative Chairmen were well-attended and the interest of those present was shown by the large number taking part in the discussions. Secretary is of the opinion that these conferences are among the most valuable functions of the Society. Accurate numutes were kept and through their distribution those not fortunate enough to be present were informed of the proceedings.

Committees

The earnest, active, energetic work done by the members of the Committees is indeed inspiring. These committeemen meeting frequently and journeying considerable distances to the place of meeting, self-sacrificingly giving their time and thought to the welfare of others show a loyalty well-worthy of emulation. The Secretary extends to them and their Chairmen the thanks of the Society.

The Secretary cannot close this section of his report without referring to the important and stupendous amount of work done by Drs. Kaliski, Heyd, and Elliott as the Committee on Workmen's

Compensation.

The indefatigable work of Dr. Kaliski is well worthy of special mention. Without hope of recompense and at great personal sacrifice he has created order out of chaos and success out of what might have been disastrous failure.

General

In a former report your Secretary took occasion to call attention to the fact that "much dissatisfaction which arises from time to time is occasioned by lack of knowledge or by erroneous impressions gleaned from hearsty or from unauthorized statements" At no time has this been more manifest than during the present year and he again requests the members not to form opinions on matters received from unauthorized sources. Many of them have stated that they did not wish to annoy or consume his time, to these and to all your Secretary definitely states that he does not consider moury whatsoever as annoving believing that it is his duty to assist members in every way possible if within his power and the limitations of reason

The Secretary sincerely thanks the President, Dr Frederic E Sondern and the members of the Executive Committee for their support, consideration, and friendship. He wishes also to extend his thanks to the Assistant Secretary, Di Peter Irving and the Executive Officer, Dr J S Lawrence for the willing and earnest cooperation which they have given

him at all times

REPORT OF COUNCIL

To the House of Delegates, Gentlemen

The Council has the honor of presenting the Annual Report which includes those of the Executive Committee, Committee on Insurance, and JOURNAL Management Committee

Two regular meetings have been held May 14, 1935, in Albany and December

12 1935, in New York City

Pursuant to the provisions of the By-Laws governing the constitution of the Executive Committee the following members of the Council nominated by the President, were elected to serve with the Officers therein provided as the Executive Committee for the ensuing year Samuel J Kopetzky, Chas Gordon Hevd, Terry M Townsend, John E Wattenberg, and Alfred K Bates

· On nomination by the President, Chas Gordon Heyd was elected Chair man of the Committee on Arrangements

It was decided that the 1936 Annual

Mi Mbi RSHIP STATIS	TICS	
Membership December 31, 1934 New members 1935 Reinstated members 1935	12 823 955 423	14 201
Deaths Resignations Expelled Ceased membership through suspension of license	218 86 1	
_		306
Dropped for nonpayment of	_	13,895
dues December 31, 1935	_	359
Hected and remstated after October 1, 1935 and dues		13 536
credited to 1396	_	528
		14 064

It is a pleasure to report that there is a decrease of two hundred in the number dropped for nonpayment of dues over last The list of Honor Counties is as follows Cheming Columbia Cortland, Delaware Dutchess Franklin, Genesee, Lewis, Madison, Montgomery, Niagara, Ontario, Orange, Otsego Putnam, Rockland, Schuyler, Tioga Washington, Livingston and Wyoming

Respectfully submitted,

DANIEI S DOUGHERTY, Secretary March 1, 1936

Meeting should be held at the Hotel Waldorf Astoria, New York City, on April 27, 28, 29, 1936

On nonunation by the President the following were elected members of Standing Committees

Public Health and Medical Education Leo F Schiff, Russell L Cecil Martin B Tinker, Edward G Whipple, Clayton W Greene, Oliver W H Mitchell, James K Quigley, Furfue Hall

Legislation Bernard B Berkowitz, B Wallace Hamilton, James F Rooney, Leo F Simpson

Economics **Frederick** Wetherell, Joseph P Garen Alfred E Shipley, Joseph C O'Gorman Cassius H Witson, Fred erick M Miller, George C Vogt, Edward T Wentworth, Homer L Nelms, Walter W Mott Morris Maslon

Public Relations William H Ross, Herbert H Bauckus Arthur I Heyl, David J Kaliski, Augustus J Hambrook, Warren Wooden

William A. Krieger was elected a member of the Committee on Scientific Work.

Arthur J. Bedell and Thomas H. Cunningham were appointed to investigate the appointment of a layman as Director of the Department of Health and Physical Education in the State Department of Education.

In accordance with Chapter 1265 of the Medical Practice Act J. Richard Kevin, Arthur J. Bedell, and Samuel J. Kopetzky were nominated to fill the vacancy on the Grievance Committee, which occurred through the expiration of the term of Dr. Kevin on December 31.

In accordance with Article 52, Section 1383, of the Education Law Paul G. Taddiken was nominated to fill the vacancy on the Nurse Advisory Council which occurred through the expiration of the term of Dr. Taddiken on December 31, 1935.

The plan for syphilis control as proposed by the New York State Department of Health was approved provided that the legal status and prerogatives of physicians be not invaded.

Executive Committee

The Executive Committee has held regular meetings on the second Thursday of each month with the exception of July and August and the June meeting which was held on the first Thursday. Two special meetings were held: July 19, 1935, to consider the change of the group insurance from the Aetna Life Insurance Company to the Yorkshire Indemnity Company, and on February 20, 1936, to consider the action which was to be taken by the State Society in regard to certain bills which had been introduced in the Legislature.

At the first meeting it organized under the Chairmanship of Frederic E. Sondern. Samuel J. Kopetzky was elected Vice-Chairman. Lorenzo J. Brosnan was appointed Counsel, and Thomas H. Clearwater, Attorney.

Although the work of the Executive Committee is of necessity more or less routine, it is of extreme importance. Many problems of interest to the welfare of the Society and of the Profession are constantly presented to it for solution and all of these have received most careful consideration.

In accordance with the By-Laws the Annual Budget was prepared and referred to the Trustees for the necessary appropriation.

The renewal of the contract with the Executive Officer was approved and re-

ferred to the Trustees.

The contract with Dwight Anderson as Director of the Public Relations Bureau under the Committee on Trends was renewed for one year from January 15, 1936.

The following Special Committees were appointed by the President:

Medical Research: John J. Morton, Jr., Chairman; John Wyckoff, Joshua E. Sweet, Allen O. Whipple, Simon Flexner, Augustus B. Wadsworth, Edwin MacD. Stanton, Herman G. Weiskotten, Winfield W. Scott, Burton T. Simpson, Peyton Rous, George J. Heuer, Marshall Clinton.

Insurance: Chas. Gordon Heyd, Chairman; Carl Boettiger, Frederic E. Elliott.

Prize Essays: Eugene H. Pool, Chairman; James Alexander Miller, Edward G. Whipple. Dr. Pool having resigned, James A. Miller was appointed Chairman and Burton T. Simpson member of the Committee on Prize Essays.

Budget: Chas. Gordon Heyd, Chairman; Daniel S. Dougherty, Charles H. Goodrich.

JOURNAL Management: George W. Kosmak, Chairman; Peter Irving, Secretary; Samuel J. Kopetzky, Thomas M. Brennan, William A. Groat, the duties of the Committee to include the Directory publication and act as Supervisor Commercial Exhibits.

Trends in Medical Practice: James F. Rooney, Chairman; George A. Leitner, Chas. Gordon Heyd, David B. Jewett, David

J. Kaliski.

Workmen's Compensation: Chas. Gordon Heyd, Chairman; David J. Kaliski, Frederic E. Elliott. Dr. Heyd having resigned, Dr. Kaliski was appointed Chairman and B. Wallace Hamilton, member of the Committee on Workmen's Compensation.

By-Laws: Daniel S. Dougherty, Chair-

man; Samuel J. Kopetzky.

Advisory Committee to T.E.R.A.: John A. Hartwell, Chairman; Louis H. Bauer, Samuel E. Appel, William Hale, Jr., Peter J. Di Natale.

Woman's Auxiliary: Mrs. John L. Bauer, President, with an Advisory Committee consisting of H. P. Mencken, Chairman; Frederic C. Conway, John L. Bauer, William H. Ross, Herman W. Galster.

James M. Hitzrot was appointed Chairman, Cassius H. Watson, Secretary, of

the newly created Section on Industrial Medicine and Surgery

Richard Kovaes was appointed Churman, Lee A Hadley, Sceretary, of the

Session on Physical Therapy
Nathan B Van Etten was appointed
Chairman and B Wallace Hamilton,
Joseph C OGorman, Thomas A
McGoldrick, and William P Howard
members of a Committee to study available plans which come within the scope
of the Ten Point Program of the American Medical Association and draw up a
model plan for bringing approved medical
care to all people at a cost within their

John Wyckoff was appointed Chairman, and Frederic C Conway and George Scott Towne members of a Committee to confer with the Saratoga Springs Commission in developing the mineral water resources of Saratoga

Springs

means

A three year contract was entered into with Thomas R Gardiner for the publication of the Directory and the management and sale of Dalubit Space at the Annual Meetings The contract with Thomas R Gardiner for the publication of the Journal was renewed for three years

The recommendations referred to the Council by the House of Delegates for the annual election of a Nominating Committee and the appointment of a full time Executive in charge of affairs were dis-

approved

Chas Gordon Heyd was appointed Charman and Charles H Goodiich, Samuel J Kopetzky, and Terry M Townsend members of a Special Committee to make a survey of the activities of the Society, particularly in regard to paid officials and expenses of Standing Committees and report to the House of Delegates Dr Goodrich and Dr Kopetzky having resigned Milton G Potter, and Thomas H Cunningham were appointed in their stead

The Governor was informed that if and when he mide an appointment to the Public Health Council, the State Society would greatly appreciate his considering the name of Joseph C O Gorman of

Buffalo

C Ward Crampton and Moses Keschner were appointed to represent the State Society at the Governor's Conference on Crime, the Criminal and Society

The following resolutions presented by the Special Committee appointed to investigate the appointment of a layman as Director of the Department of Health and Physical Education in the State Department of Education were approved

- 1 That the qualifications for this and other such positions closely associated with the delivery of medical service should be reviewed by our Society and appropriate suggestions made before the examination, are advertised
- 2 That in view of the facts above stated we ask the Civil Service Reform Association to investigate this recent examination and appointment and render a seport of their findings
- 3 I hat we acknowledge our indebtedness to our President, Dr Sondern, to Dr Leonard for his excellent work and for his valued protests, all mide in the interest of the people and the medical profession, and that we also express our thanks to Dr Hurold H Matchell, President of the New York State School Physicians Association, Dr Ellis II Champlin, President of the New York State Health and Physical Education Association to our Public Relations Committee through Chairman Warren to Dr Joseph S Lawrence our Executive Officer, and to the legion of others who endoised the appointment of a graduate in medicine as the head of such an important State Department

4 That in farness to all concerned such Examination Boards should consist of three members

That the President inform the Regents of the above action taken by the Executive Committee and that an editorial be published in the State Journal

Permission was granted the Committee on Public Health and Mcdical Education to participate with the State Department of Health and the State Association of Public Health L thoratories in organizing and directing a campaign for the prevention of pneumonia deaths

The President was empowered to appoint a Committee of three to represent the State Society in cooperation with Committees from the County Medical Societies from the Metropolitan Area to make a survey and to take preliminary steps for the proper representation of organized medicine at the George Washington World's Fair in 1939

Probably the most important action taken by the Executive Committee during the year was the decision to change the Group Insurance from the Aetna Insurance Company to the Yorkshire Indemnity Company. This change was made on the recommendation of the Insurance Committee who, after careful consideration of the service rendered by the two Companies, felt that that offered by the Yorkshire Indemnity would be of the greater value to the members.

Committee on Insurance

This Committee presents the following

report:

The Committee on Malpractice Defense and Indemnity Insurance were confronted in May, 1935, with a proposed increase of \$4.00 in the base rate on group mal-

practice insurance.

Meetings of the Committee were held in June and July, 1935, when the entire subject of malpractice insurance was considered. These deliberations were covered in a Report of the Committee published in the November 15, 1935, issue of the New York State Journal of Medicine,

page 1167.

Your Committee recommended to the President of the Medical Society of the State of New York on July 10, 1935, that a Special Meeting of the Executive Committee of the Medical Society of the State of New York be held for the purpose of terminating the arrangements between the Aetna Life Insurance Company and the Medical Society of the State of New York. At a Special Meeting of the Executive Committee on Friday, July 19, 1935, motion was duly made, seconded and carried:

That the Aetna Insurance Company be notified by the proper officials of the Medical Society of the State of New York that the arrangements between the said Aetna Company and the Medical Society of the State of New York be terminated as of midnight, December 31, 1935.

That the Insurance Committee, Mr. Brosnan, Counsel, and Mr. Wanvig, Insurance Representative, be instructed to act with power for the purpose of bringing into being an arrangement between the Medical Society of the State of New York and the

Yorkshire Indemnity Company.

Following the action of the Special Meeting of the Executive Committee of the Medical Society of the State of New

York, the membership of the Society were notified of the change from the former carrier to the Yorkshire Indemnity Company, to take place at midnight of December 31, 1935.

In the October 15, 1935, issue of the New York State Journal of Medicine, the Insurance Committee published under "Society Activities," page 1044, the financial background of the Yorkshire Indemnity Company and again in the December 1, 1935, issue of the New York State Journal of Medicine, dage 1226, the Insurance Committee brought to the attention of the membership the Regulations of the House of Delegates in regard to members insuring in companies other than the recommended carrier.

On Thursday, December 12, 1935, the Council approved the action of the Special Meeting of the Executive Committee.

On the first day of January, 1936, the official and recommended carrier of the Group Malpractice Insurance—the Yorkshire Indemnity Company—took over this function.

It was obvious that a change from the former carrier to the Yorkshire Indemnity Company would be associated with great interest, in some cases doubt, and

in a few cases open hostility.

Since the formation of the present Insurance Committee various members of the Committee have visited a number of the Component County Societies, together with the official Insurance Counsel—Mr. Harry F. Wanvig—and explained the various features that went into the decision for making the change and the merits of the much better protection afforded by the new carrier, the Yorkshire Indemnity Company.

In conclusion, we would like to repeat verbatim the following communication: [Reproduced page 444, March 15 issue]

Established 1824

The
YORKSHIRE INSURANCE COMPANY
Yorkshire House
66 & 67 Cornhill
London, E. C. 3

10th, January, 1936

Dr. C. Gordon Heyd, 116, East 53rd Street, New York Dear Sir:

We have your letter of the 26th ulto., and

may advise you that the Yorkshire Indemnity Company being entirely owned by our selves its habilities will be taken care of by us so long as they exist in the same way as our own liabilities both in the United States and elsewhere

Yours faithfully, W MAUDSLEY,

General Manager

At the close of business on January 31 there were only fifty two members in the entire state out of a total of 843 whose insurance expired in January who failed to renew their insurance in the Society's Group Plan As against this there were approximately minety new applications received from members not previously in sured. This represents a net gain of thirty eight insured.

The accomplishment of the Insurance Committee would not have been possible without the help, expert advice, and cooperation of the Insurance Counsel, Mr Harry F Wanvig, who was one of the founders, with Mr Whiteside of the malpractice group insurance, and who has contributed so much in the last fifteen years to making this insurance for the members of the Medical Society of the State of New York such a significant success

Respectfully submitted,
Chas Gordon Hend Chairman
Carl Boettiger
Frederic E Llliott

Journal Management Committee

Your Management Committee, charged January 1, 1934, with the duty of effecting publication of the JOURNAL and given a somewhat similar responsibility on May 14, 1935, for the Directory begs to report on its double stewardship

THE JOURNAL

Substantial advances have been made in 1935 by the JOHNAL and at a very small increase in cost per member over the figure set for 1934

In its editorial expressions it may be said that the magazine has assumed a definite clear cut individuality or personality all its own which has gained attention not only in this State but also nationally Moreover, widespread recognition of the editorials has been accorded by the lay press of the entire state, an evidence that the JOURNAL is regarded as

the official mouth-piece of organized medicine in this commonwealth. This development, which is essential for such a publication, has been made possible by designation of a single member of the Committee as responsible for the editorial pages.

The other sections have become stabilized and because an increase in size has been found possible new columns have been opened. The heading County Society News was cliniged to Medical News in order to widen that portion by inclusion of items of medical interest from each county in addition to reports of County.

Society activities

Two new columns have been opened Public Health News, because of its importance to all physicians in the state, has been accorded a title. In the section named Across the Desk comment is made on matters of general and wide human interest. It has been felt that, because the physician in his work comes into close contact with human activities of all kinds and the resultant effects on his patients, many things besides medicine have for him a vital interest.

The flow into the Journal office of material for which publication or comment is sought has increased enormously, particularly in the field of original scientific articles. It has been necessary to reject many articles, otherwise acceptable, because of lack of space. The Committee hopes that contributions will continue to multiply, that authors will recognize the advantages of appearance of their articles in the New York Statt Journal of Medicing which now has a circulation (press run) of over 20,000 copies.

It became clear early in 1935 that an increase of the number of pages would be possible during the winter of 1935-36. For that reason extra articles were accepted well in advance of enlargement. This has occasioned some delay in appearance, but recently the size has been jumped from 96 to 128 pages and the surplus absolute the start of the s

surplus is leaving the shelves

Your Committee desires to call the attention of the members to the fact that papers read at the Annual Meeting automatically become the property of the So ciety for publication if suitable Apparently this is not sufficiently understood Some authors prefer publication in special

journals. While such a presentation finds a wider specialist audience, it deprives the general group of valuable material.

Your Committee has not hesitated in such instances to seek or grant permission for reproduction, feeling that the duplication of printing is an advantage rather than a detriment to all concerned. With few exceptions, however, the specialist journals do not like to be the "followers." The hope is expressed that this attitude might some day change. For technical reasons, what is called simultaneous publication is well-nigh impossible.

It is recommended that the Society consider the possibility of making the papers read by invited guests also become the property of the Society just as in the case of member papers.

Some idea of the growth of the Jour-NAL may be gained from the following

figures:

Average total circulation: 1933, 13,690. 1934, 15,406, 1935. 19,099. These figures include members, paid subscribers, exchanges, advertisers, advertising agencies, and file copies.

Page content compares as follows:

		1934	1935
Total number of text pages Advertising pages			
Comparison of the first three years shows:	four	issue	es of
•	1934	1935	1936
Text	174	192	302

 Text
 174
 192
 302

 Advertising
 72
 138
 157

 Total
 246
 330
 459

The purely scientific content was:

1934 1935 6% pages 738 pages

and for the first four issues of three years

1934 1935 1936 101 123 194

Of passing interest as indicating the magnitude of the publication task, the total pounds of postage paid for in the year 1935 was 199,685; and in 1936 it is estimated that more than 10 carloads of paper will be used for printing.

The actual cost to the Society in 1935 was 90 cents per member as compared to 70 cents in 1934. This rise, due to greater expense of certain improvements established in securing editorial material, news material, cuts and other incidentals, still

leaves the figure well within the dollar appropriated for the JOURNAL. It should be compared with the figure of \$1.49 per member in 1933.

Your Committee conceives it to be its duty to serve all committees and the officers through the Journal. It deprecates the dissemination of our "publicity" force into too many channels. It would like to see all members turn to the Journal for all their medical news. It, therefore, recommends that all committee news, all statements having a news value from officials be published in the Journal after editing to conform with the policies of the Society.

THE DIRECTORY

While the lists of physicians are still compiled in the Office of the Society, actual printing and mailing and advertising are now managed by Thomas R. Gardiner through the JOURNAL Office and under direct supervision of the JOURNAL Committee. It was thought wise to change the complete format for the 1935-1936 edition producing a book with a stiff cover. This has been accomplished for \$1.04 per member as compared to \$1.06 in 1934, practically the same cost but with a better book.

It is the opinion of your Committee that the book would be improved by printing full details under the name of each physician in New Jersey and Connecticut, just as is done for New York doctors. Negotiations with officials of the other two State Societies are in progress.

The inclusion of informative material of various other kinds for reference is under consideration for 1937, such as the certification by National Boards, qualifications to serve under the Workman's Compensation Law, and teaching positions held, etc.

Respectfully submitted,

GEORGE W. KOSMAK, Chairman THOMAS M. BRENNAN WILLIAM A. GROAT SAMUEL J. KOPETZKY PETER IRVING, Secretary

Reports of these three Committees— Executive, Insurance, and Journal Management—are

Respectfully submitted,

DANIEL S. DOUGHERTY, Secretary

March 1, 1936

REPORT OF COMMITTEE ON SCIENTIFIC WORK

To the House of Delegates, Gentlemen:

Your Committee has held two regular sessions and there have been several special conferences relative to the preparation of the scientific programs and ex-We have been so fortunate as to have with us at these sessions the President of the Society, the Chairman of the Committee on Airangements, the Speaker of the House, the Secretary of the JOURNAL Management Committee, the Director of Public Relations Bureau, and the Executive Officer It has happened that the Secretary has been unable to be present but has always communicated with us and in his familiai untiring way has assisted and advised us In the opinion of your Chairman, the presence of these ex officio members and guests has stimulated the members of the Committee and brought clearly to their minds the importance of high standards for papers to be presented with an eye toward their publication for the betterment of the Journal and their usefulness for the dissemination of sound practical information to the profession and public Reasonable publicity on medical matters through official channels is now approved scientific medicine does interest the public and when properly edited for news value and controlled greatly facilitates the acceptance of innovations and improvements which active research medicine so frequently implicates

The Scientific program will be presented by distinguished guests who will speak to us on the great medical topics of the day and others equally distinguished who will inform us concerning their valuable investigations that we, too, may make use of their discoveries. The bulk and backbone of the program, however, will be the timely, carefully prepared presentations of our own members in the sessions

of the various sections Each Section Chairman has worked most faithfully and commendably in preparing for their morning sessions devoted to the specialities. Your Chairman believes these section programs to be of the very highest order and that they will be found intensely interesting.

We are particularly indebted to Dr Krieger and to the Local Committee headed by Dr Henderson for their careful attention to the selection and arrange-

ment of the Scientific Exhibit

The attention to every detail shown by Dr Chas Gordon Heyd, Chairman of the Committee on Arrangements, gives each section suitable space and all equipment and arrangement necessary for the

proper presentation of papers

The cooperation of the hospitals with the Local Committee on Arrangements in preparing a clinical program for Thursday is to be highly commended. These clinics in order that they make full use of interesting current material will not be finally arranged until shortly before the annual meeting Announcement and full schedules, however, will be available on Wednesday, April 29, at 1 00 PM at the Registration Desk and Bulletin Board Every effort is being made to correlate these clinical demonstrations with the scientific program. It is expected that some of our distinguished guests will participate in the clinics

Your Charman recommends that the extra day program be continued, the character of the program to be suited to the particular facilities of the city where the meeting is to be held and to be arranged by a Local Committee with the approval of the Committee on Scientific Work

Respectfully submitted,

WILLIAM A GROAT, M.D., Chairman March 1, 1936

REPORT OF THE TREASURER Balance Sheet, December 31, 1935

Assets Current Assets: Cash Petty Cash On Deposit	\$49.38 20,462.51	620 511 90	
Securities — (Bonds Par Value \$70,500.00 — Cost \$70,131.47): At Market Value		\$20,511.89	
Interest Accrued Thereon	703.59	65,569.06	\$86,080.95
FRUST FUND ASSETS: Union Dime Savings Bank: Lucien Howe Prize Fund\$1,165.53 Merritt H. Cash Prize Fund454.45 With General Funds Belonging to Trust Funds	\$1,619.98 29,974.17		\$80,080.93
Sccurities — (Bonds and Mortgage Par Value \$125,-		\$31,594.15	
000.00 — Cost \$126,810.63): At Market Value	121,636.41 1,574.75	123,211.16	
Deferred Charge: Directory Postage — 1936	-		154,805.31 382.40
FIXED Assets: Furniture and Fixtures	• • • • • • • • • •	······-	1.00
LIABILITIES, TRUST FUNDS AN	en Crener re	-	\$241,269.66
CURRENT LIABILITY: Due Thomas R. Gardiner for 1935 Directories			\$112.00
DEFERRED INCOME: 1936 Annual Dues Received in Advance			3,315.00
TRUST FUNDS: Lucien Howe Prize Fund Merritt H. Cash Prize Fund Wear, Tear, Loss and Depreciation Fund Journal Fund Directory Fund Fund to provide for Investment Depreciation		\$3,790.19 1,731.62 46,602.60 39,381.47 20,615.60 42,683.83	154,805.33
Surplus (General Fund): Balance — January 1, 1935	\$3,509.89 22,215.87		134,000.0.
·	··	25,725.76	
Deduct: Amounts Allocated to Trust Funds		\$123,754.10 40,716.75	
Balance — December 31, 1935			83,037.35
			\$241,269.66
JOURNAL ACCOUNT FOR TWELVE MONTHS E	ENDED DEC	== EMBER 31, 193	5
TOTIPNAL Management Committee			05 ((0.4)
JOURNAL Management Committee: Salary and Editorial Expenses. JOURNAL Publication Cost		• • • • • • • • • • • • • • • • • • • •	\$5,668.10 7,058.67

60 403 00

DIRECTORY ACCOUNT FOR TWELVE MONTHS ENDED DECEMBER 31, 1935 Expenses

Publication			
Total Cost of Directory		······································	\$14,613.75
STATEMENT OF INCOME AND E	XPENSES FOR	TWELVE MONTHS ENDED DECEMBER	31, 1935
Committee On: Legislation \$6,373.60 Public Health and Medical Education \$7,31.84 Medical Economics 4,094.36 Public Relations 1,385.46 Scientific Work 959.04 Medical Research 40.35 Trends 13,934.04 Workmen's Compensation 1,257.74 Entertainment of British Physicians 853.80 County Secretaries' Conference. District Branches Special Appropriation for District Branches Executive Officer's Salary Executive Officer's Taylenges Salaries—General Legal Expenses Traveling Expenses— A. M. A. 2887.65 General 2,887.65	\$34,630.40 589.68 1,730.75 200.00 8,000.00 1,192.85 3,600.00 14,550.59 12,750.24	Annual Dues Received: Arrears \$2,172.00 1934 11,610.00 1935 125,935.00 Interest Earned on General Fund Securities Clerical Work Net Gain for Balance of Year 1934 and Prior, Received and Recorded in Year 1935 from Directory Account	\$139,717.00 1 3,075.75 130.22
Annual Meeting—1935	3,102.52 2,867.93		

from Directory Account...... 14,613.75

\$121,230.20

Excess of Income over Expenses

Transferred to Surplus...... 22,215.87

\$143,446.07

520.00 2.600.00

1,073.03 597.21 171.55 138.33 1,117.73

352.18

4.104.63

12,726 83

Auditing

Postage
Telephone
Custodian Fees (Securities)...
Office and Sundry Expense
Meetings of Officers and Standing
Committees
Loss on Sale of General Fund

JOURNAL Account
Cost of Directory Transferred

\$143,446.07

The above accounts have been audited and found correct by Wolf & Company, C.P.A., New York State.

Respectully submitted,
CHARLES H. GOODRICH, Treasurer

REPORT OF BOARD OF TRUSTEES

To the House of Delegates; Gentlemen:

I have the honor to report for the Board of Trustees that the finances of the Society are in a very sound condition. The Board has met as occasion de-

The Board has met as occasion demanded and considered carefully the various items of the budget as well as subsequent appropriations recommended by the Council or the Executive Committee.

These recommendations were generally approved with very little, if any, modification.

The constant aim of the Board has been to conserve the funds of the Society without restricting the legitimate activities of any department.

Due to the alertness of the Treasurer and the Investment Committee of the Board, regarding changes in the market, the position of the invested funds of the Society has been materially improved.

The report of the Treasurer will reveal these changes in detail.

There have been a number of instances, however, when the restrictions applying to Trustees have seemed to deprive the Society of the benefits to be derived from investment in other securities.

After several discussions of this situation it was finally decided to recommend to the House of Delegates that the Board of Trustees be authorized to invest up to twenty-five per cent of the Investment Fund in carefully selected securities outside of those now permitted Guardians of Trust Funds.

Respectfully submitted, HARRY R. TRICK, Chairman March 1, 1936

REPORT OF COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION

To the House of Delegates; Gentlemen:

Your Committee on Public Health and Medical Education begs leave to submit the following report for the current year, 1935–1936.

Graduate Education

Graduate courses have been given, or will be given, to the following County Medical Societies during the year.

Courses Completed

Cortland County ... Neurology

*Columbia County ... Internal Medicine

*Greene County ... Internal Medicine

Monroe County ... Internal Medicine

Rockland County ... Internal Medicine

Courses Not Completed

*Course was given jointly to both Counties.

A report at this time does not include all the courses which will be given before July 1. For obvious reasons, many County Societies prefer to have a course during the more favorable weather of the late Spring, and have not made the necessary arrangements. However, it is not expected that as many courses as usual will be given, owing to the intensive graduate education concerning pheumonia, which is discussed in another part of the report.

Postgraduate medical education is an annual activity of several County Societies. Except for two of the counties mentioned, all have had courses for several succeeding years. Chemung, Jefferson, St. Lawrence, and Sullivan County Medical Societies continue their record of having had a course each year since this work was started by the State Medical Society. It is now possible to give a joint course in Greene and Columbia Counties, owing to better means of transportation, and they appear in the list after a lapse of a few years. Where previously there were difficulties in carrying on separate courses in these Counties, the need and demand for this work is most satisfactorily met by the combined course. This plan should be considered by other similarly located County Societies. Reports indicate that all courses were very satisfactory.

During the past year, the courses which the Committee provides have been revised in order to keep them up to date. This has resulted in the elimination of a few courses, and in making changes in some of the others. One new course on Obstetrics has been added, and the Committee is considering material for those dealing with other subjects. The Committee is having prepared, when possible, mimeographed abstracts of the lectures. These are distributed to those attending the meetings, in order to give more permanent

value to the talks. The Committee is indebted to the lecturers who have served during the past year, as well as to the physicians who have aided in the organization of courses Past experience has facilitated the administrative details and has enabled the Committee to do its work efficiently and economically Requests for information as to the work of the Medical Society of the State of New York, in furmslung graduate education to its members. have been received from the Idaho State Medical Association the Dean of the Emory University School of Medicine, and from the New York City Bar Association This information has been provided, and advice given regarding these activities

Public Health

With the improvement of organization in postgraduate education, the Committee has had more time to devote to the consideration of other public health matters Postgraduate medical education is one of the major activities which the medical profession contributes to the modern public health program As the duties and responsibilities of physicians increase in such a program, the importance graduate education becomes all the more obvious During the past year the Committee's major attention has been directed to Child Hygiene, Maternal Welfare, Pneumonia Control and Syphilis Control For the purpose of studying these subjects the Committee has continued its previous plan of living sub-committees made up as follows

Child Hygiene Dr Furfax Hall, Churman, Dr Leo Schiff, Dr O Mitchell

Maternal Welfare Dr James K Ouigley, Chairman, Dr Pairfax Hall, Dr Martin B Tinker

Pneumonia Control Dr Russell L Cecil. Chairman, Dr Clayton Greene, Dr O W II Mitchell

Nursing Education Dr Clayton W Greene, Chairman, Dr Russell L Cecil, Dr Martin B Tinker, Dr O W H Mitchell, Dr Peter Irving (Dr Irving serves by special permission of the Executive Committee)

Dr Fairfax Hall was re appointed as representative of the Committee on Public Health and Medical Education on the Joint Sub committee on the Deaf and Hard-of-Hearing Each of the sub committees studied intensively those subjects under its consideration and reported its findings to the whole Committee for approval. The Committee has found this plan to be very satisfactory

Child Hyaiene This sub-committee has continued to work with the County Societies in an endeavor to develop a committee and r program on Child Hygiche in such County Societies which as yet have not organized All County such committees and programs Societies have been notified that federal funds will probably be available to the State Department of Health to expend on Child It is therefore necessary Medical Societies be well Health work that County organized to take the leadership in directing these activities if physicians in active prac tice are to do the work and be compensated for it The Committee has listed the following subjects as suggestions for contemplated activities by County Medical Societies

1 Intensive effort to improve care of pre mature infants

2 Pre School Γχαπιπατίσης 3 School Health Programs cooperation with school health (a) Active authorities (b) Appoint advisory committee (c) Improve forms used for examinations (d) Physical ex aminations by private physicians

4 Children's Health Hour in physicians' office for health measures including immunizations against communicable diseases

A request submitted in August, for information regarding the activities of County Medical Societies in the field of Child Hygiene was followed by replies received from sixteen Counties indicating that four had done a large amount of work six a fan amount while six others had left most of the work to the official health department Recent correspondence with County Medical Societies indicates that there is a growing appreciation of what the County Society can do in this field. Undoubtedly a survey made at the present time would show a marked improvement

Maternal Welfare The sub committee on Maternal Welfare has continued to progress in its work as outlined in previous reports There are now twenty five County Societies with maternal welfare commissions, or simi lar committees Twenty of these have been organized through the efforts of the State Committee Undoubtedly similar commissions have been organized in other County Societies which have not been reported to the State Committee Some of these maternal welfare commissions have been very active, and are developing well rounded programs As previously stated, it is the desire of the State Committee to have a maternal welfare commission in each County Society

The churman of the sub committee, Dr

Quigles, gave an address at the Annual

Conference of Public Health Officers in Saratoga on June 27, detailing the work that had been accomplished by this Committee. He has assisted in preparing programs on this subject, for several County Societies, some of which were public meetings. Dr. Quigley also took part in the program of the American Maternal Welfare Committee on June 12, in which he discussed maternal welfare in New York State.

A conference of the chairmen of maternal welfare commissions of County Societies was held at the time of the last annual meeting of the State Medical Society and a similar conference is planned in conjunction with the next annual meeting.

Procumonia Control. The Committee on Public Health and Medical Education in its annual report to the House of Delegates, presented at the 1935 meeting, indicated the need of a campaign for the control of pneumonia to be carried on with the assistance of other organizations. Such a program is now in operation, being sponsored by the New York State Department of Health, the State Association of Public Health Laboratories, the Metropolitan Life Insurance Company, the Commonwealth Fund, and the Medical Society of the State of New York.

The State Department of Health has set up a separate unit for this purpose under the direction of Dr. Edward S. Rogers. The State Department of Health has also appointed an Advisory Committee, consisting of representatives of the above mentioned organizations. The members of the sub-committee on Pneumonia of the State Medical Society are members of this Advisory Committee.

The purposes of the campaign are, briefly, as follows: 1. Early medical care for pneumonia patients. 2. Laboratory service for rapid type determination and other bacteriological studies. 3. Increased use of concentrated anti-pneumococcic serum when this treatment is indicated. 4. Adequate nursing service for all patients.

One of the important activities of the State Medical Society in this program has been the provision of postgraduate instruction regarding pneumonia. Early in December a letter was addressed to the officers of each County Medical Society inquiring as to what attention the County Society had given to this program, and whether or not, it would care to have the Committee on Public Health and Medical Education provide speakers as part of the scientific program of an early meeting. A group of well-qualified internists, residing in various parts of the State, was organized for the purpose of giving clinical talks on pneumonia, with

special reference to serum treatment. This group included the following physicians:

In addition to these clinical talks, the bacteriological side of pneumonia with a demonstration of the rapid typing method has been discussed by qualified bacteriologists. The purposes of the campaign have been presented by Dr. Rogers, or by some member of the Committee on Public Health and Medical Education of the State Medical Society. To date such programs have been given at the meetings of twenty-seven County Medical Societies, and definite plans. have been arranged for meetings during early March for six other County Societies. Seven County Societies will have such meetings, but have not arranged for definite dates. There are only fourteen County So-Metropolitan cieties, not including the Counties, which have not made plans for such meetings. Considering the short time since this matter was brought to the attention of the County Medical Societies, this record shows keen interest and splendid cooperation on the part of the medical profession. With the exception of six counties, all the details in connection with these meetings, were arranged through the office of the chairman of the Committee on Public Health and Medical Education.

The percentage of attendance at these meetings has been unusually high with intensive interest and good attention on the part of the members. The general comment of the members has been that the programs have been most satisfactory, helpful, and practical. Reports are reaching the Committee on Public Health and Medical Education of the successful results obtained from the use of the antipneumococcic serum Type I, in the treatment of appropriate cases.

While the Metropolitan Life Insurance Company, and the Commonwealth Fund have made appropriations to the State Department of Health to help finance the Pneumonia Control Program, all the work which the State Society has done, has been paid

for from the appropriation made to the Committee on Public Health and Medical Education, by the Medical Society of the State of New York

Your Committee on Public Health and Medical Education feels that medical and educational problems, concerning the Pneumonia Control Program, should be responsibilities of the Committee, through the subcommittee on Pneumoma

The Committee believes that the work of the physicians in the Pneumonia Control Program will prove to be a model of what the medical profession can do in public health work This is evidenced by the very active participation of the medical profession The activities of this Committee demonstrate that the State Medical Society is well-organized to cooperate in a modern health program and can bring its forces into immediate action

A supplementary detailed report of the Pneumonia Control Program will be presented later. It is hoped that the material necessary for this support will be collected so that the report can be published before the time of the Annual meeting of the

State Society

Nursing Education This committee has no report to make on this matter, in view of the fact that there has been no general agreement during the present year for changes in nursing education. It is advisable that this sub committee be continued

Deaf and Hard-of-Hearing The joint subcommittee on the Deaf and Hard-of-Hearing, which represents the Public Relations Committee, and this Committee, will make its own separate report

Syphilis Control

Early in the year the plan for the control of syphilis, proposed by the New York State Department of Health was submitted to this Committee for study meeting of the Committee on June 26, the following resolution was adopted:

"The Committee on Public Health and Medical Education has studied the plan for the control of syphilis proposed by the New York State Department of Health ures for the control of syphilis should include the following

1 Intensive epidemiological investigation of recent syphilitic infections

2 Adequate facilities for diagnosis and treatment of all persons with syphilis and special care and attention to those with communicable

3 Compensation of physicians for services to patients unable to pay Compensation for services in clinics

These measures are necessary if the number of infections is to be reduced and the disease eventually eradicated. The Committee believes that the proposed plan provides for these necessary control measures, and that it conserves and protects the interests of physici ins and patients

The Committee on Public Health and Medical Education recommends that the Medical Society of the State of New York approve the plan for syphilis control as proposed by the New York State Depart-ment of Health?

This resolution, with slight change, was approved by the Council at its meeting m December

General Comments

The Committee has held four general meetings during the year as follows June 26, July 30, and October 19, 1935, and February 20, 1936 The Sub-committees have met from time to time as occasion necessitated

The Committee wishes to acknowledge the cordial and cooperative relations that have existed between the State Department of Health and the Committee on Public Health and Medical Education At the annual Health Officers' Conference in Saratoga the chairman of the Committee presided at one session, and three of the members of the Committee gave addresses at different sessions

In the last annual report the Committee expressed the view that future health problems must be concerned more and more with the individual practicing physician and stated that it was prepared to offer its services in advising County Medical Societies to this end The Committee is very happy to report that during the year there has been a marked increase m the interest of County Medical Socities in these programs, and has frequently received letters requesting advice and information from public health committees of County Medical Societies

The Committee and especially its chairman wishes to acknowledge the fine cooperation which it has received from the President, the other officers, and the other Standing Committees of the State Society during the present year. The Chairman wishes to express his appreciation of the unselfish service of all the members of the Committee

Respectfully submitted,

THOMAS P FARMER, M D, Chan man March 1, 1936

REPORT OF COMMITTEE ON ECONOMICS

To the House of Delegates; Gentlemen:

1. Tangible progress has been made during the year just past. Some of the issues which concern the profession—as the activities of foundations, contract practice, the practice of medicine by hospitals, law revision, compulsory health insurance—have become more clearly defined and, therefore, some of the problems, arising out of our civic-social environment, are nearer solution. There is an increasing recognition that the public and the profession have a common or mutual interest in the maintenance of a reasonable economic security for the practicing physician. More cordial and understanding relations have been promoted between the profession, as represented by its officers and committeemen, and the public and private agencies, as represented by their administrative heads. The successful undertaking by the County Medical Societies of responsibilities in relation to the care of injured workmen has gone far in correcting bygone abuses. It has awakened the profession to the possibilities of a more perfect organic structure for the administration of those matters which concern us individually, but, which must be handled by collective action.

The practice of medicine is not unlike a door—there are two faces or aspects, inseparable yet distinctly apart—on the one side are the biologic problems of diagnosis and treatment, while on the other side, are the economic problems. The old order of organization has served one side admirably. A new order of organization is needed at this time to deal with the economics on the other side.

2. We felicitate the Society upon the progress made in setting up an amended law for the care of the injured workmen. The recommendations of this Committee reported in 1933, after slight alteration by the special commission, appointed by Governor Lehman, passed thru the Legislature with only slight modifications and are now law. In the metropolitan industrial centers conditions certainly are improving; many of the old abuses are disappearing, and this considerable field of practice is being returned to the more responsible members of the profession. The Committee on Workmen's Compensation will report on the tasks yet to be accomplished in this direction.

3. Injured workmen engaged under the Works Progress Administration are beneficiaries of the United States Compensation Law. Negotiations with the responsible authorities have resulted in turning the care of these Federal workmen into the same status as workmen who are employed in private industry. This is true at least in those counties in which the local Medical Society board has registered the list of "enrolled physicians" with the State W.P.A. Administrator.

New York City (five counties) is a separate district and the negotiation for similar arrangement has not been effected. In the city of Buffalo the arrangement is not working satisfactorily due to the transfer of a large number into the facilities of the Marine Hospital maintained at this point by the Federal Government.

Public Works Administration (P.W.A.) should not be confused with Works Progress Administration (W.P.A.). Employees on P.W.A. projects have the same status as employees of any other employer of industry—the state Workmen's Compensation Law applies. (See bulletin published in March 1, 1936 JOURNAL, page 366).

4. In Niagara Falls the local County Medical Society has transposed the terms of the Compensation Law into a proposition to the city council for the care of the poor and unemployed who are on relief. Acceptance has not been accomplished at the time of this writing. Whether it succeeds or not, it represents an excellent demonstration of local initiative and splendid cooperation with civic authorities.

There is also pending at this time a proposed amendment to the Welfare Law which will eliminate the "contract" doctor for the care of the community poor and will substitute service of a private physician in the home of the patient—with compensation for the service. This amendment includes cities as well as rural areas.

5. The Gradient Plan. This Committee has presented a statement of a program which embraces many different features, thru which every person may have needed medical care upon terms or conditions economically sound and just. Organized medicine cannot hold public confidence thru a multiplicity of plans and a declaration that no one of them will fit every locality. Of course, this is true. The need is for a single designation under which the local medical group, cooperating with other agencies, can exercise a directing control and establish those provisions which are suited to the local conditions. More of our public could be retained in a self reliant status if in every community

there were one office or institution, sponsored by the medical profession and associated interests, where anyone needing advice or guidance could go with assurance of receiving sympathetic and helpful counsel We believe it would be comparatively easy to educate the public to become familiar with and to utilize such scrvice

The pamphlet on The Gradient Plan was circulated to stimulate thought and comment. Considerable response has been received. Members of the Committee have been presenting a discussion of the subject before many of the local County Medical Societies We would only emphasize here that this is not a finished plan ready to be proposed for adoption. We are still soliciting further comment still developing details Some parts of the plan can be adopted immediately thru the initiative of local County Medical Societies Some of the features of The Gradient Plan, of course, will require recasting of law details and a better coordination of all parties of interest in the promotion of health and welfare

We recommend that this Society formulate, within the framework of the ten points or principles of the American Medical Association, a program of which The Gradient Plan is an illustration Such program should be uniform in all localities and susceptible of adjustment of details Then, every feature, demonstrated by experience to be sound can be utilized insofar as it is suited to local conditions Discussions thus may become less tangential and each established gain will fit into an orderly system of the complex civil and social environment

6 Law Revision The project of revision of health and welfare laws has been discussed in previous reports and is being actively pursued. This is an instance in which time and persistent effort are required The interests are multiple and nothing can be accomplished without legislative action. The task requires the study of a properly constituted state commission representing all points of view

7 In Brattleboro Vermont, there has been operated a voluntary type of insurance which has proven satisfactory to the public and the local profession after several years' experience Mr Richards M Bradley, Trustee for the Thomas Thompson Fund, has resources available and a desire to establish a demonstration of this type of insurance in New York State At the time of writing, a bill is before the Legislature which, if enacted, will amend the Insurance Law of the State and mile this and other demonstrations possible. This is true insurance-it provides the money to pay the expense of sick care without coming between the patient and those who serve his needs

There are those who fear the development of any type of "voluntary insurance" because in the experience of European countries it has invariably led to governmental regulation in the form of some kind of a state compulsory insurance. This sequence has developed because the medical profession has traditionally held aloof from rational consideration of the financial aspects of then service. If our organized units will assume reasonable responsibilities, the known possible abuses of "voluntary" insurance will not occur. It was the abuses which developed in the voluntary systems that led to governmental regulation

8 Foundations The past year has witnessed a change in our relations with the directors of several foundations. There is now a better acquaintance and understanding Continued developments may bring more than a visionary hope that in the immediate future years financial support for truly constructive efforts, under the guidance of the medical profession, will be avulable from such sources

9 The Committee would be derelict if it failed to direct attention to the serious threats now impending over the economic security of the profession. One is the competition of hospital institutions. The other is the growth of commercialism under the beneficient guise of "contract practice" of medicine

10 In less than a decade hospital institutionalism has risen to a preemment place in the care of the sick. Over-building and extravagance and in some instances maladministration have brought these enterprises into financial difficulties, even before the effects of the general industrial depression Free medical carc to great numbers of persons above the need of charity and fully able to practice some measure of self reliance is part of the disturbing situation Many hospitals have educated the people to believe that it is they who are the donors of this service. Their importance has been emphasized and the part played by the generosity of the profession goes without knowledge or notice in the public mind

Many hospitals have extended their

claims as being the donors of professional service to that of being the vendors of our gratuitous service. The theory of "clinic fees" constitutes an exploitation of the medical profession. The hospitals have not stopped here. Instances can be cited where some hospital corporations are now "buying and selling" professional service for profit. When the enactment of the amendment to the Workmen's Compensation Law became effective some hospitals asserted a right to a license to conduct a "medical bureau" thru which to commercialize the care of injured workmen—they yielded reluctantly upon authoritative ruling by the Attorney General.

May we point out that the hospitals are in a position to establish a devastating competition against the individual physician. The hospitals are in a position to violate every rule laid down for the conduct of the ethical physician. We enumerate. They gain public favor by news publicity which often includes frank advertising. Claims of superior service are supported by self praise. They practice the inducements of "cut rate" or "small unit" fees. Added to this, hospitals enjoy tax exemptions. They may indulge in annual deficits which are met from funds solicited in the name of charity and this without sacrifice of dignity or prestige.

The medical profession will suffer demoralization and pauperization if this challenge is not aggressively and successfully met. We must be the masters in our own house or else become enslaved to institutional service and lay-minded regulation.

11. Of even greater danger to the moral integrity of the profession is the threat of commercialization of medical care thru "contract practice" in some of its forms. In some parts of this country failure of organized medicine to assume a firm stand and to establish sensible regulation, and in some instances with actual condonement or such practice, has resulted in a loss of public respect and confidence. This Committee has under consideration the matter of setting up restrictive specifications limiting the range of contracts which an ethical member in good standing may make. This is a challenge of first degree importance. Success in meeting it depends upon wholehearted cooperation of the profession. If we fail, and if commercial exploitation of the public become general, we may reasonably expect some form of bureaucratic medicine to be established by popular demand.

12. Neighboring States. Continued cordial cooperative relations with economic groups have been most helpful and gratifying. All the northeast states have common problems. The exchange of experiences and discussions of methods has been valuable. Success of this Committee in some details of its work has been largely due to team work with our neighbors and we would be grossly unappreciative did we not here make acknowledgment of it.

13. County Medical Society Contacts. During the past year your Committee has endeavored to establish a more intimate and personal contact with all County Medical Societies. Each member has assumed the task of visiting his neighboring County Medical Societies. We believe a much larger number of the State Society membership has become familiar with and interested in the work of this Committeewith mutual benefits. We are sure that we have become better acquainted with local problems and needs. We are convinced that pursuit of this program will give State organization a more practical and composite unity, both as to thought and action.

14. Bulletins. We have continued the issuance of "bulletins" as circumstances justified. The correspondence of the Committee has become a tremendous task. We have received regularly a large number of Medical Society bulletins, from which we have received great benefit and inspiration. The most hopeful aspect in the field of medical economics is the evidence of a widespread awakening to its problems and an energetic determination to solve them.

May we conclude our report with an acknowledgment of deep appreciation for the very friendly and generous assistance and encouragement of the officers and committees of the State and County Medical Societies, which has made our work possible and most pleasant.

Respectfully submitted,

FREDERIC E. ELLIOTT, Chairman JOSEPH P. GAREN MORRIS MASLON FREDERICK M. MILLER WALTER M. MOTT HOMER L. NELMS JOSEPH C. O'GORMAN ALFRED E. SHIPLEY GEORGE C. VOGT CASSIUS H. WATSON EDWARD T. WENTWORTH FREDERICK S. WETHERELL

March 1, 1936.

REPORT OF THE COMMITTEE ON PUBLIC RELATIONS

To the House of Delegates, Gentlemen

At the last meeting of the House of Delegates there were three matters assigned to the Committee on Public Relations to investigate and to finally report upon They were

1 That the care and examination of school children with defective eyesight be entirely in the care of physicians

2 That hospitals for insune and tubercu lous patients should from time to time report to the physicians regarding the progress

and condition of these patients

3 That individual county societies appoint active committees for the purpose of bringing before the public and the lay press their point of view in medical questions arising in their own counties.

I beg now to report on these three mat

ters in the order presented

In the study of the first issue (the care and examination of children with defective eyesight by physicians only) the Committee met with members of the Department of Education and found that there are authorized and chartered under the Board of Regents two schools of optometry. The Regents have prescribed curricula, have established an examination for licensure, and successful candidates are given certificates legalizing their work in refraction only. Hence by law they are a group licensed to practice and may live as their clients any individuals who wish to avail themselves of their work. The Division of Higher Education controlling their license and supervision feels that it cannot discriminate against the optometrists in refraction work. It is readily seen that if this body wishes this matter pressed further it must consider a change in law Turthermore, as your Committee had received some communications from county societies speaking of some irregu larities developing in the examination of the eyes of school children, a conference was held with the optometrists and the Department of Education The final re sult of such efforts may be stated briefly as follows That the Society of Optometrists has a code of ethics which is copied from the code of ethics of the Medical Society of the State of New York If any of their members are guilty of unprofessional conduct they welcome receiving specific information through formal complaint

From the facts above stated, your Committee has no recommendation to make on this matter

The second matter which this House at its last meeting passed to our Committee is "That hospitals for insane and tuberculous patients should from time to time report to the physicians regarding the progress and condition of these patients" From the Department of Social Welfare of the State it is learned that there were 17,000 patients last year in tuberculous hospitals, and the Department of Mental Hygiene had 61 499 patients registered in the insane hospitals of the State, a total of 80 000 Under the circumstances, it seems to your Committee that to report from time to time on each of these patients would be a very considerable undertaking, particularly if the report was complete enough to really tell something of the status of the patient. Patients with these illnesses really require individual letters from an intimate knowledge of the patient, or else the letter is of little use Although a form letter simply stating that the patient is improved, or no better. or worse is not impossible even with such large numbers, yet on the other hand it cannot mean too much with patients who often have such variable periods of intprovement or adverse progression Both departments mentioned above feel that the routine letter writing would be almost beyond their power to execute, and vet both state that it is now a common practice to write any physician who wishes information concerning patients

Your Committee believes and recommends that physicians who have prtients in the tuberculous and insane hospitals of the State should individually ask for

reports on such patients

The third resolution which this body asked us to study and report upon has given considerable discussion Your Committee believes that the matter is one of great importance and has greater implications than would appear at first glance. That a better public relationship should be set up at many local and county areas there is no question. It is the only way that local matters can be handled properly Early in the year your Committee communicated with the chairmen of the Public Relations Committees of all our

County Societies asking them to acquaint us with their problems. This was done with the idea of sorting out from local relationship problems some rather uniform ones that were the concern of many counties. It was quickly found that most of their problems were purely local and should be adjusted through local means. Most of these problems arose through the fact that a single group in the community was trying to foster some pet thing. I may have been a hospital group, or a social group, or a school group who independently was trying to put over some program. These circumstances occur hundreds of times a year in the State of New York, and they only serve to show that there are many local problems which do not have local machinery to work them out in a satisfactory and successful manner.

After much deliberation your Committee is bold enough to suggest that one of the problems of medicine is to develop a local machinery for the study and solution of many of its public health-relationship problems. There are in any local community many agencies working in healthrelations matters, and if there is to be a successful solution of local issues, there must be a pooling of interests by these agencies. This union tends to do away with diffuseness of effort and misguidance and misunderstanding which have been so prevalent in the past. The formation of a council or a community community health-relations council offers a machinery which has been worked out and which has been eminently successful in its undertaking. In this organization all the recognized health agencies become members. The purposes of such a council would be:

1. To coordinate and facilitate the work of the component agencies.

2. To assemble and make available facts calculated to promote the health-relationship

problems of the community.

3. To comprehend the local situation, its needs, the resources available to meet them and to further the adjustment of these resources to the needs.

4. To delegate responsibility for specific

undertakings to particular agencies.

5. To initiate projects shown to be desirable.

6. To act as a bureau of information for any organization or individual seeking in-

formation on health—public relationship activities or agencies.

With the formation of a community health-relations council of such character and defined purposes, it speedily receives community recognition. Matters which it brings to the community are received with thought and cooperation is attained. Such a council eliminates individual striving and duplication of effort. It is able to properly consider the important community problems, as well as to eliminate the uselessness of working on unnecessary problems. One might argue that in such a group a proper medical viewpoint could not be obtained. Experience has shown, however, that the deliberations of the body are guided by its medical representatives. All the members of the council recognize that we have been appointed as a special group by the State not only to bring average intelligence and ability to the care of those intrusted to us, but also to preserve in every way possible the health relationships of the people of the State. Furthermore it is equally recognized that we are acquainted with these problems better than any other group and are the only group who know the machinery for working them out. This type of organization allows us then to again take the leadership and guidance in all public health-relationship matters to the ultimate good and better health of the community.

Studies of Other Matters

In addition to the study of the matters referred to by the last House of Delegates, your Committee undertook to study six other matters that we believed were of key importance in continuing to carry out soundly our responsibility to the public as well as to develop a continuing wholesome attitude in the public's mind toward our efforts in the execution of our relationships and the proper guidance in the solution of these relationship prob-The program included:

1. Studies of the Malpractice and Grievance Committee cases with the object of reducing the number of such cases.

2. Studies on hospital interns including the number practicing in the State without licenses and the number of interns here who are not permitted to take the licensure

3. Studies in the licensing of foreign

trained physicians with the idea of determining if there is an abuse or not

4 Studies working towards a closer professional affiliation with the legal profession

5 The health surveys of school children, particularly as to the relation of the practicing physician to these surveys

6 Continuing investigation of the problem of the hard of hearing of our State

In the order mentioned each of these subjects will be briefly presented, conclusions drawn and recommendations made

1 Malpractice cases and grievance minities problems. The Committee committee problems recognizes the thoughtful and prinstrking work of the individuals and bodies dealing with these problems. It is further aware that there are yearly reports on the work done by both these divisions is conscious of the fact that in the State Journal there are quite regularly important contributions from the Legal However, in the study of the Grievance Committee cases for a period of a year we found that there were seventy one cases before that body, not a great number, and yet many of them unnecessary and inadvertently crused by thoughtlessness on the part of the doctors We will all agree that all such actions brought against any members of our profession remain as stains in the minds of some of the public, and there should be a more determined effort to minimize such charges

Of the seventy one cases before the Grievance Committee, it reports that twenty were from unethical conduct. This is accurate but not as informative as it should be It is thought that one should know the causes of unethical conduct in these cases and in a general way from this information the profession can be requainted with the pitfalls that have put others into trouble. It is not meant that cases are to be cited or names indulged in but from the study of the causes, general statements can be made from time to time which should eliminate at least some of this difficulty Your Committee believes that a closer relationship between the Grievance Committee and the Legal Division should be maintained with this thought in mind It further believes that from such studies made information of a general character should be sent to the Charmen of the Public Relations Com mittees of the County Societies, where ultimately such information should get, if one is to accomplish anything along this line

Other cases before the Grievance Committee were from improper advertising, and yet many of these individuals did not know they were indulging in implicating practices

Again such matters as aiding and abetting, and fraud and deceit were common reasons for appearing before this Committee. A study of each of these issues should yield information which, if placed in front of our profession would keep some from thoughtlessly indulging in practices that have befallen their brethren.

It is understood that the above plan for meeting this important relationship problem does not in any way minimize, detract or yet replace any of the work of these two divisions, but has as its object the intimate study of causes which the rank and file should finally be acquainted with if they are to be aided in keeping out of difficulty that has myolved others

It recommends

1 That a closer relationship between the Public Relations Committee the Grievance Committee and the Legal Division be established

2 That ifter a study of the cruses of these cases is made, such information in general form be presented to the Chairman of the Public Relations Committee of each County Society when and if such communication receives the endorsement of the House of Delegates the Council or the Executive Committee

2 Hospital Interns State supervision of interns is under the Department of Social Welfare The law allows interns in recognized hospitals to intern and practice there without a license Board of Regents of the State of New York allows only interns of recognized Grade A schools to apply for licensure in the State Yet a partial survey on interns discloses the fact that there are about fifty graduates of unrecognized medical schools who are interning throughout the State The survey is not complete, and there may be moderate in-creases. This seems paradoxical that the State allows interns to practice within its borders who are graduates from medical schools that are not recognized by the State and whose graduates cannot even apply for licensure. Your Committee believes that this is an untenable situation and recommends:

That the Department of Welfare and the Department of Education be asked to take steps to eliminate the situation, and that hereafter only graduates of medical schools recognized by the Regents of the State of New York be allowed to intern within the State.

In further study of the intern matter your Committee finds, from a survey of the Department of Social Welfare and a special committee studying the intern situation in New York City, that there are in up-State hospitals 415 interns, of whom 171 are licensed in the State; and in New York City there are 1,550 interns, of whom 749 are licensed in the State. The survey is not complete, but it shows that New York State is educating from twenty to twenty-five per cent of the interns of the country, and that only onehalf of the interns in our State are licensed to practice here. This matter is receiving continued study by your Committee with the idea of eventually arriving at a decision as to whether or no all interns should be compelled to be licensed in the State.

At this time your Committee is not qualified to recommend concerning this matter.

- 3. Forcign Physicians. The study of the subject of licensing foreign graduates in medicine shows that these graduates fall into three groups:
- 1. Young physicians educated in their native lands who come here and are admitted to the regular medical licensing examinations

2. Foreign physicians who have been established in practice in their countries for a certain number of years and come here and apply for licenses without examinations.

3. American students who go to foreign countries for their medical education and are licensed in foreign countries and then return to this country in order to practice.

Applicants for examination in the first group include graduates of governmental institutions or universities in Great Britain, France, Germany, Austria, Switzerland, and Italy. Schools in South and Central America and Mexico are not recognized. Applicants were formerly taken from Russia but are not now

accepted. In one or two cases there have been applicants from other countries, and in those cases their preliminary education has been carefully investigated and their cases handled individually. In case their preparation is considered comparable to ours, they are permitted to take the regular examination. The mortality of the first group of applicants is very high. Failures average about thirty-five per cent annually.

The second group is composed of native Europeans who have been well-established in practice. Many of them are distinguished men. A considerable number of these settle in New York, partly because many other states do not allow them to come in unless they are full citizens, and partly because they feel more at home in New York City.

The number in the third group is not great at present. Probably not over 125 in the whole State are studying medicine abroad, and yearly this number is growing smaller.

Further investigation discloses the fact that during the past ten years there have been about one hundred graduates of foreign medical schools admitted yearly to practice in New York State. In the year 1933 there were ninety-eight admitted to practice in New York State out of 184 who came to this country. In 1934 there were 299 graduates of foreign countries licensed to practice in the United States, and 217 of this number obtained licensure in New York State. In 1935, 157 graduates of European medical colleges were licensed, after examination, in New York State, and sixty-five graduates of foreign schools received licenses by endorsement. The law of New York State regulating this matter does not allow of any adjustment unless it is changed. The Division of Immigration of the United States Labor Department informs us that there is no attempt at regulating the number of physicians who wish to enter the United States. Authorities tell us that we have 25.000 doctors too many, and yet our doors remained open to literally thousands in the past ten years. It seems that this matter is of wider interest than is at present claimed and is a matter that should be taken to our National body.

Your Committee recommends:

That the delegates from the New York State Medical Society he instructed to present the matter to the House of Delegates of the American Medical Association isking for a comprehensive investigation of the matter and such action after study as seems wise

4 The Legal Profession During the past year your Committee has given some thought to the establishment of a closer professional affiliation and understanding with the legal profession We believe that these two great professions should work in greater harmony in matters that The impression involve both of them is current in the legal profession that the doctors often take advantage of their prerogatives at their expense, and our profession ofttimes believes that the legal profession takes advantage of them Certainly these two great bodies contact frequently in legal and legislative matters, and it would seem that nothing but good could come from the more intimate understanding of each other's problems and The Committee is not able at this time to offer concrete recommendations, but believes that the matter is one which deserves further study and conference, and at a liter time it hopes to be able to make recommendations con cerning such a relationship

5 Lyamination of School Children The Department of Education by law re quires school children to present a health certificate yearly on entering school. On account of economic difficulties many of the families of children have found it impossible to have their children exammed by their physicians, as they have no funds to pay for the same. This has led to an attempt to have this work in part carried out by school physicians. It has been found that in certain localities the school physician has attempted to examine from forty to sixty children an hour One cannot be satisfied with such superficial work. At best it is only a visible inspection. If the children of the State are to be educated in the value of periodic health examinations they should be impressed by such a standard of work as will favorably influence them to continue these yearly examinations through life A school physician cannot possibly accomplish this end On the contrary, the superficial inspection would leave bad

impressions and eliminate in the minds of some forever the thought of yearly exanimations The Department of Education recognizes that annual examinations should be made by the family doctor and is anxious and willing to do all in its power to see that such conditions obtain However, ultimately the matter depends upon the attitude of the local superintendents and the local school boards. If they so desire they can add to their hudgets a certain amount to be used to pay the family doctor for the examination of the child of the indigent family We find that in some communities this is done It becomes then a local problem as well as a state-wide problem. Those localities which have the proper machinery for the solution of medical relationship problems are in a better position to handle matters of this kind than those who have no machinery. This is only one of many local problems which show the absolute need of local machinery such as is described in the fore part of this report when it emphasized the need of a Health-Public Relations Council for at least every

county unit Although much might be gained by this local approach of the school child exammation problem, your Committee believes that there are added matters of fundamental importance in this issue Within the Department of Education there is a Health and Physical Education Division Under it the 1,470 school phy sicians work to care for 880,000 school children Until recently a physician was in charge of this Division It would seem that the matter of health of school chil dren far transcends the matter of their physical education If this be true, it would seem that a physician should guide the important part of the work of this Department of Education Division The section on Physical Education has as its function the teaching οŧ mimetics. rhythms and dances, games, calesthenics, drills, athletics, stunts, marching tactics, and apparatus drills Although we recognize the importance of these activities for growing and developing children and young adults, yet we cannot conceive that they are of greater importance than the health problems of those same children In the recent appointment of a nonmedical man to the headship of the Division of Health and Physical Education we are fearful that a proper viewpoint of health matters may be lost and that proper cooperation and development in the Division will suffer. We believe the problem is of great importance and recommend:

That a special committee be appointed to investigate the entire matter and in particular to determine whether health matters in the schools would be best served by remaining in the Department of Education or whether they should be transferred to the Department of Health.

- 6. On the Deaf and Hard of Hearing. The Sub-Committee on the Deaf and Hard of Hearing has worked very diligently during the past year. Dr. Hambrook, of Troy, is chairman of the Sub-Committee; Dr. Fairfax Hall, of New Rochelle, is the other member; and Mrs. Estelle E. Samuelson is the Secretary. Many important phases of the problem have been studied, of which the following are examples:
- 1. The idea of raising the standard of the otological care of children in the schools for the deaf.
- 2. The elimination of moderately hard of hearing children from the schools for the deaf.
- deaf.

 3. The possibility of admitting children at an earlier age to the schools.
- 4. The desirability of reporting hard of hearing and deaf children.
- 5. The annual otological examination of school children through scientific means.
- 6. The conservation of hearing of all school children.

These and many other phases of this very important problem have received thoughtful consideration. Although progress is being made, yet it seems too slow for the amount of effort and thought given to this issue over the past few years. The Sub-Committee has been active in creating interest in the subject. Radio talks have been given, papers have been presented before medical and lay groups, sub-committees have been formed in many of the county societies, and an exhibit was held last year at the State meeting. Through the cooperation of the State Department of Health and Education one hundred hard of hearing cases were selected for treatment from the counties of Tompkins, Westchester, Albany, and Rensselaer. Each case had been certified by the Educational Department and then placed under the care of an otologist selected by the County Medical Society. Nominal fees have been allowed for this work. Much good should come from this project. It will not only have a decided educational value to those intimately interested in it, but some of the children, through early corrective treatment, may be prevented from having more serious loss of hearing. In a few scattered places throughout the State scientific hearing tests have been given to the school children, and through these many cases of beginning deafness have been discovered.

Although the above are steps forward in this very important problem, yet what has been accomplished does not seem commensurate with the tremendous effort that has been made. The issue of the hard of hearing has been so long carried on by precedent surrounded by legislative regulation and so completely isolated from other health issues, that constructive direct approach is almost impossible. The loss of hearing is a very serious hardship to every citizen, and modern methods of study, investigation and management should be speedily available to all children who show a beginning loss of this function.

After much discussion your Committee believes that the matter merits serious consideration from this body and recommends:

That the Governor of the State of New York be petitioned to appoint a commission which is to include members of the Medical Society of the State of New York to thoroughly investigate the problem of the care of the deaf and hard of hearing children of the State.

Finally, the chairman wishes to recognize the splendid cooperation of each member of the Public Relations Committee, who have all worked diligently and loyally to the end that we might constructively add something to our relationship to the public.

L. F. Warren, Chairman H. H. Bauckus A. J. Hambrook A. F. Heyl D. J. Kaliski W. H. Ross W. Wooden

March 1, 1936

REPORT OF THE COMMITTEE ON ARRANGEMENTS

To the House of Delegates, Gentlemen.

The Committee on Arrangements for the 130th Annual Meeting of the Medical Society of the State of New York wish to report to the House of Delegates that all of the activities connected with the forthcoming Meeting will take place in the Waldorf Astoria Hotel, New York City

The Executive Committee approved of the following Committees the General Committee of Arrangements, Committee of Publicity, Committee of Broadcasting, a local Committee of Broadcasting, and a local Metropolitan Committee for the Banquet, a large Committee of 'Key" Hospital Men for the purpose of listing the Clinic Day, Thursday, April 30th, 1936 The membership of these Committees has been published in various issues of the Journal of the Medical Society of the State of New York and are not herewith listed

The Scientific Sessions in charge of Dr William A Groat have been able to procure the assignment of Assembly Halls for the Scientific Sessions of the Meeting The arrangement is particularly advantageous to the members of the Society in that all the Scientific Sessions will be field on one floor level, with the addition of the Grand Ballroom

Scriatim the Program for the Annual Meeting is as follows

Monday, April 27th

10 A M —Convening of the House of Delegates, Grand Ballroom, Waldorf-Astoria Hotel

6 30 r M — House of Delegates Dinner, Starlight Roof (Price of Dinner, \$4 00)

Tuesday, April 28th

10 AM-House of Delegates, Sert Room, Park Avenue Untrance

10 AM—Opening of Scientific Sessions 2 PM—General Meeting—Grand Ballroom

7 PM —Annual Meeting, Medical Society of the State of New York

7 PM —Bunquet, Medical Society of the State of New York

9 i M —Reading of the Minutes of the last Annual Meeting, Dr Daniel S Dougherty, Secre-

> Introduction of Distinguished Guests, Dr Chas Gordon Heyd, Toastmaster

> Address by Dr Trederic E Son dern Retiring President, Medical Society of the State of New York

> Address by Rt Hon Lord Horder of Ashford, Chief of Medical Service St Bartholomew's Hospital London England

> Address by Dr Willard C Rappleye Denn, College of Physicians and Surgeons, Columbia University, New York

> Address by Dr William M Lewis, President, Lafayette College, Paston, Pa

10 30 PM -- Reception and Dance, Starlight Roof

Wednesday, April 29th

9 AM -Scientific Sessions

2 PM -General Meeting, Grand Ballroom

8 30 Р м -- Ореп Гогит

Opening Remarks by Di T T Sondern, who will preside What the Community Should Know About

Diabetes Dr Albert A Erstein, New York City

Appendicitis Dr George P Muillr Stuttering and Stammering Dr James S

Greens, New York City

Failing Exessight Dr Arthur J Broell,

Albuny

Gotter Dr Chas Gordon Heyd, New

York City

Infantile Paralysis Dr Louis C
Schroeder, New York City

Common Colds Dr A RAYMOND

DOCHET New York City

Quacks and Quackery DR Morris FishBrin, Chicago, III

Thursday, April 30th

Chinics in all specialties in all of the public and voluntary hospitals in Manhattan Schedule of Clinics will be available at noon

dule of Clinics will be available at noon, Wednesday, April 29th, at the Registration Booth, Silver Corridor, Waldorf-Astoria Hotel-Lexington Avenue Side The Commercial Exhibits under the direction of Thomas R. Gardiner have been extended and increased with remarkable degree. They will occupy the entire Fourth Floor of the Lexington Avenue part of the Waldorf-Astoria Hotel, together with the East and West Foyers adjacent to the Grand Ballroom.

The Scientific Exhibit in charge of Dr. William A. Krieger, assisted by Dr. John Henderson and Dr. Eilif C. Hanssen, will occupy the two sides and rear of the Mezzanine of the Grand Ballroom Floor and will comprise fifty-five booths of uniform space, allotted to fifty-five exhibitors.

In addition, a motion picture theatre has been created as part of the Scientific Exhibit, Cloak Room Section of the Grand Ballroom. It is proposed to give motion picture displays in rotation, continuously from 10 A.M. to 6 P.M. on Monday, Tuesday, and Wednesday of the meeting. The names and titles of the Scientific Exhibitors are published elsewhere in this issue of the Journal.

Respectfully submitted
Chas. Gordon Heyd, Chairman
March 1, 1936.

REPORT OF COMMITTEE ON LEGISLATION

To the House of Delegates; Gentlemen:

Your Committee on Legislation has been in conference six times during the year, three times prior to January 1. On one of these occasions it conferred with the legislative committee of the State Hospital Association and understandings were reached with regard to the introduction and support of a joint lien bill. Another of the conferences was with the Legislative Advisory Committee which you authorized to be appointed, at which time we outlined a program for securing the utmost support both of the physicians and organized lay groups for supporting our position on legislation. It was agreed that members of the Advisory Committee should give more than the usual amount of attention to commenting upon bills that would be sent them and also assist in stimulating County Chairmen. It was announced at this meeting that the chiropractors were showing unusual activity; that they were publishing a journal in Westchester County and selling stickers similar in appearance to the Christmas seals.

The first meeting of the Committee in the new year was held about the middle of January, at which time the bills that were then before the Legislature were carefully reveiwed and action taken; also plans were developed for the annual conference with the County Society Chairmen, which was held in Albany on February 6. Twenty-eight County Societies were represented at this conference and the Advisory Committee was

also in attendance. All of the bills before the Legislature at the time were carefully reviewed and action taken on those that had been introduced since the last meeting of the Committee. Up to this time no lien bill had been introduced and the Committee on Economics had requested that a bill which it prepared be given consideration. The Committee recommended that certain changes be made in the bill before it should be introduced, and requested the Economics Committee to have the changes made. The bill was sent to the Society's Counsel for revision and the revised copy has only recently been received.

A conference requires that each member sacrifice a day from his office and practice and costs the Society the travel expenses to Albany and return. The Telephone Company, through its conference department, suggested that we could hold conferences from our offices. At a time we might mention they would give us each a clear wire that we might use without interruption as long as we desired. Such a conference was held on February 27. The day preceding, each member was mailed for study a copy of each bill that was to be considered at the conference. At the time stated we were all connected and proceeded to discuss our business in much the same manner as we would have done had we traveled to Albany, with the only difference that we could not see each other. In the office at Albany, Dr. Lawrence and Miss Briggs took stenographic notes of the transactions. We are pleased to report that the conference was very

satisfactory and the expense to the Society was approximately the same as is incurred by the other type of conference. We are planning another such conference for Sunday, March 8, and on Thursday, March 12, we shall have a meeting in Albany with our Advisory Committee

From the Legislative Bureau the usual informative bulletins are being distributed to the County Chairmen and all of the members of the various County Society Legislative Committees, as well as to many others who are interested in and supporting our work, and copies of the bills considered are being sent to the chairmen of each County Society Committee as promptly as they are received from the printer. To date we have issued eight regular and three special bulletins and have distributed sixty-four bills

Thus far the usual autivivisection bill has been introduced, and four chiropractic bills. Three lien bills, two providing for hospitals alone and the third for hospitals, physicians, and nurses, and a number of amendments to the Workmen's Compensation Law, are before the Legislature Some of the latter are very objectionable, if enacted they would do great harm to the Compensation Law enacted last year

A bill proposing that the medical inspection of school children be transferred from the Department of Education to the Department of Health has been introduced and is producing a great deal of comment The bill is the result of the reaction to the appointment by the Department of Education of a layman as Director of the Division of Health and Physical Education

The Committee has had introduced, by request, a bill limiting the licensure of foreign physicians without examination to those graduated from schools registered by the Department of Education, and requiring that all others take our State Board examinations There is another bill, introduced by Assemblyman Conway, which requires full citizenship of all who apply for licensure, and a bill prohibiting physicians from advertising for patronage, similar to one enacted to the Dental Law last year

The work of the Committee is heavier than in any preceding year, as a matter of fact, it is growing heavier annually and it is bound to do so as long as we are obliged to protect the public and ourselves against those well-wishers who are inclined toward socialized medicine. The Health Insurance Bill of last year was reintroduced but we are hoping that it will be defeated in committee However, this sort of activity will continue and it is highly important that the Society take special pains with its organization and with its educational work to organize informed groups wherever possible, who will realize the dangers that state medicine entails. We, as physicians, are not, as has been repeatedly proven, a very influential politicial organization during the period of the election campaigns. We have many friends in the Legislature when it convenes and we always have a fair hearing on matters that come before the Legislature But we could strengthen our position very materially by developing friendships with other bodies and groups that have an active interest in the elections Naturally, legislators feel obligated to those of their constituents who show active interest in the elections, and one cannot censure them for giving a preference to such persons when there is before the Legislature a debatable matter in which they are interested

Your Committee has asked the County Chairmen to establish a closer relationship with their Congressmen than they have in past years so that we might assist the American Medical Association in influencing Federal legislation if the need occurs. We are trying to take with the AMA a position similar to that which we ask the County Societies to feel for us

This report is written while the Legislature is still in session, and we ask the privilege of submitting a supplementary report at the close of the session if that occurs before the meeting of your Honorable Body

Respectfully submitted. HARRY ARANOW, Chairman

March 1, 1936

REPORT OF COMMITTEE ON MEDICAL RESEARCH

To the House of Delegates; Gentlemen:

In behalf of your Committee on Medical Research, I have the honor to pre-

sent the following report:

The annual antivivisection bill, Assembly Int. No. 83, was introduced by Mr. Doyle and referred to the Committee on Public Health. This bill differed in no respect from those previously presented. It was designed to prevent experimentation on the living dog. Many prominent citizens protested to the members of the Public Health Committee that such a bill was decidedly against the interests of the public health. Several members of the Committee on Public Health have been present at previous public hearings on this bill at Albany. It was unnecessary to convince them that no new evidence had been gathered by the antivivisectionists to show that the present laws are not adequate. The new members of this committee were contacted and the oppposition of the State Medical Society to this bill was explained to them. Up to the present time no action has been taken on this bill and it appears that it will not receive favorable consideration.

It is suggested that careful selection of material be made by medical men who are making motion pictures to illustrate scientific research. Any procedures which might be misinterpreted or misunderstood by the public should not be included.

Your Chairman wishes to thank the members of the Committee on Medical Research for their cooperation in carry-

ing out the annual program.

Respectfully submitted,

John J. Morton, M.D., Chairman

March 1, 1936

REPORT OF COMMITTEE ON TRENDS

To the House of Delegates; Gentlemen:

By a process of de-limitation from the work of other Committees of the Society that of the Committee on Trends has been confined, in the main, to the supervision under the direction of the Executive Committee, of the projects and plans of the Public Relations Bureau of your

Society.

In these days of mass action and propaganda it is most important that the profession, which in the end through their labor, sustain or promote the civilization within which they live should have some means, and those most effective, for presenting their view point in relation to. not alone professional, but relative social problems, to the people whom they serve. Without this action antagonistically minded groups who have access to the people by the present diverse and rapid means of communication both of eye and ear may readily secure such following of emotional, but not rational, conviction on the part of the people that without having a medium of explanation and truthful restatement the labors of innumerable generations of the profession to advance its capability of service in the prevention and cure of disease may be crippled by its reduction to serfdown under lay administrative officials.

In order to fulfill the requirements which necessity has placed upon us the Bureau of Public Relations was established and has, we believe, even in the brief time that it has been in existence, thoroughly and completely justified its institution.

During the past year it has widely extended its efforts and has increased the respect of the public press for the opinion of the organized profession. Not alone has this been true as concerns this State but its influence has reached to the farthest parts of the Union, from Maine to California and from Louisiana to Minnesota and even to the Philippines.

The attached report of the Director of the Public Relations Bureau will more specifically cover the scope of its efforts and plans. As time goes on and knowledge of its capabilities for usefulness becomes more wide-spread the Bureau should become one of the most important factors in disseminating to the public the ideals of the profession, the progress of scientific medicine and the advancement of the Public Health.

Public Relations Bureau

In rendering this report of activities of the Public Relations Bureau, attention may well be drawn to the purpose for which it was instituted, Janury 15, 1935
"To bring about a better understanding upon the part of the public of the aims and ideals of the incdical profession sup-

porting the society"

Since its inception the Bureau has dispatched a total of ninety-five releases These went to daily and weekly newspapers, industrial house organs, the labor press, the agricultural press, grange, fraternal and foreign language newspapers in New York State They had to do with such matters as meetings of the state society and its district branches many of them were in opposition to socialized medicine, compulsory sickness insurance, and anti-vivisection. Some explained features of the Medical Abuses Act, and others referred to editorials and other material published in the New YORK STATE JOURNAL OF MEDICINE

In July the special weekly column, "DO YOU KNOW?' was started with the weekly papers of the state, 272 of these publications have requested that it be sent them. In thirty-seven counties of the state, local medical societies are sponsoring this weekly column which goes direct from the Public Relations Bureau to the newspapers Letters of appreciation from editors on file in the office of the Bureau, as well as press clippings, indicate the widespread accept ance of this material. One chain of five weekly newspapers sends this material out in duplicate with a circulation in excess of 12,000 homes in Westchester

In addition to the use of this material by the weekly press, it has been inde the subject of radio broadcast by stations in Rochester and Buffalo The United Press Association at its Albany office selects one paragraph each week and sends it to its subscriber papers in the State of New York

Two pamphlets have been published and distributed by the Bureau Will America Copy Germany's Mistakes? by Gustav Hartz and Medicine and Men, by Dr Frederic E Sondern, president of the Medical Society of the State of New York Of the former a total of 2161 copies were distributed to important persons throughout the state and 304 were sent outside the state by special request Of the latter, to date, 4200 copies have

been distributed, thirty eight on request from individuals, libraries, and schools outside the State of New York. The foregoing pamphlets have also been sold singly and in quantity at cost to public libraries and universities and to seven medical societies. Purchases at cost of Medicine and Men totalling 3300 copies have been made by the Maine Medical Association, Medical Society of the State of Pennsylvania, Iowa State Medical Society, Indiana State Dental Society, and the Medical Society of the State of North Carolina.

Medicine and Men has been reprinted by the Journal of the Philippine Island Medical Association and by Southwestern Medicine

Both pumphicts have recently been indexed and listed in every public library in the country and additional orders are expected from time to time for which a nominal charge will be made to cover the

cost of printing and mailing

The Public Relations Bureau was instrumental in obtaining the publication of Will America Copy Genmany's Mistal erg in the Nation's Business and an editorial quoting Dr Sondern's Medicine and Men in the Saturday Evening Post Both the Bureau and Dr Sondern were in receipt of many requests for further material from high school debating teams and others, as a result of this editorial

Four special confidential bulletins have been prepared and issued to officers of medical societies relating to influencing popular opinion about matters in which the society is interested Requests for duplicates of some of these bulletins have been received from several state and county medical societies outside New York State

The director of the Bureau has attended eight conference meetings in New York. City of various committees and groups, and five in Albany He attended the American Medical Association meeting in Atlantic City in May, made one trip to Washington, one trip to Philadelphia, and one trip to Perth Amboy, New Jersey, in addition to attending eight district branch meetings throughout the state in the fall of 1935. He was privileged to attend county society meetings in Westchester, Nassau, and Bronx At the request of the Journal Manage-

ment Committee the director attended weekly editorial conferences of the Jour-NAL staff.

The director of the Bureau spoke at Syracuse, before the New York Press Association, January 31, 1936, on the subject, *The Doctor Looks at News*-

papers.

Many conferences have been had by the director both in his office and elsewhere with editors, magazine writers, and other influential key persons. Contacts have been established with every available avenue for the dissemination of information to the public so as to render them accessible for voicing the opinions of the medical profession from time to time as occasion may arise.

The Bureau handled relations with the press at the Annual Meeting in Albany, May 13-15, 1935, assisting local newspaper representatives as well as those of the Associated Press and the United Press in obtaining information of interest

to the public.

In connection with the meetings of eight district branches of the society in September and October, the Bureau released to the weekly and daily press in each locality, the news pertaining to each

individual branch meeting.

The Public Health and Medical Education Committee of the society under the chairmanship of Dr. Thomas P. Farmer participated with the New York State Department of Health in a pneumonia campaign during the winter months. Other agencies cooperating in this campaign were the Metropolitan Life Insurance Company, the Rockefeller Institute for Medical Research, the New York Public Association of Laboratories, and the Commonwealth Fund. At the request of a sub-committee on lay publicity, Dr. Peter Irving, chairman, the Bureau assisted by preparing a plan for lay education on the subject of pneumonia control. Six releases were distributed to the daily and weekly press and the director assisted in arranging a radio broadcast in which the participants were: Hon. Herbert H. Lehman, Governor of the State of New York, Dr. Frederic E. Sondern, president of the Medical Society of the State of New York, and Dr. Thomas Parran, Jr., State Commissioner of Health. In connection

with this broadcast an official proclamation was issued by the Governor calling upon the people of the state to cooperate in this educational effort.

The material issued by the Bureau has been quoted at various times in the Journal of the American Medical Association, the New England Journal of Medicine, the Ohio State Medical Society Journal, the Journal of the Iowa State Medical Society, the Florida Medical Association Journal, and various bulletins and publications of state and county medical societies.

The reception by the press of newspaper releases is shown in two scrap books kept on file in the office of the Bureau. Representative clippings of each release are contained in this file which now covers 160 pages. This record discloses a significant representation of editorial comment.

In December, 1935, the Bureau installed modern addressing and mailing mechanical equipment. This machinery was used at the outset to mail the usual releases and bulletins and its operation reduced the clerical work by two-thirds. The Bureau is compiling a mailing list to comprise ultimately 10,000 to 15,000 names of civic leaders throughout the state for purposes of placing in their hands directly such documents as Medicine and Men and other pamphlets or bulletins desired to be issued to present the news of medical activities or to express the objects of the society. These names are compiled from lists of educators, teachers, lawyers, social workers, legislators, and public officials. Sixteen county medical societies have cooperated and provided lists of names of important persons in their communities. To date 7250 stencils for automatic addressing have

A graphic display will be on view at the annual meeting of the society describing the work of the Bureau.

Respectfully submitted,

JAMES F. ROONEY, Chairman, CHAS. GORDON HEYD DAVID B. JEWETT DAVID J. KALISKI GEORGE A. LEITNER

March 1, 1936

REPORT OF THE COUNSEL

To the House of Delegates, Gentlemen

Your Counsel herewith submits his report of the activities of the Legal Department of the Medical Society of the State of New York for the period from March 1, 1935, to and including January 31, 1936. It will be noted that the reporting period this year covers a period of eleven instead of tucke months. This was made necessary by reason of the date of the meeting of the House of Delegates and the fact that the reports must be published in advance of the Annual Meeting

As our report indicates, the past year has been an exceedingly busy one both in court and in consultation. The report states only conclusions. It does not give any adequate picture of the work involved or the responsibility assumed by our

Department

At the outset of this report your Counsel wishes to record his appreciation for the assistance and cooperation furnished him by your officers and committeemen. It is difficult for the membership to realize the numerise amount of work done by these gentlemen for the welfare of the members generally. Suffice it to say that they are giving unstantingly of their time and talents to the many important problems confronting organized medicine in these parlous times.

In making his report your Counsel adheres to the convenient category on ployed in previous years whereby his activities have been divided into three min divisions (a) The actual hindling of malpractice actions before courts and juries and in the Appellate tribunals, (b) counsel work with officers, commit tees and individual members of the Society, and (c) legislative advice and

activities

Litigation

We have so often written and spoken on the ever present possibility of a malpractice action and the hazard presented by such a lawsuit that no extended comment is necessary in a report of this character

We wish to again point out that under our law the physicians' rights so far as the facts of the case are concerned are entirely in the hands of a lay jury The prevalence of prejudice and misplaced

sympathy as affecting the verdict of a jury is well known to anyone who has had anything to do with our jury system

It is pertinent at this point to make mention of the fact that careless, hasty, and unjustified criticism by one physician concerning the work of another often leads to the commencement of a malpractice action

Your Counsel believes that such unjustified criticism is not often deliberately made but frequently the effect on the patient is precisely the same as if the criticism were motivated by malice

Some fifteen years ago your representatives, with far seeing vision and with a realization of the ever present hazards confronting the physician in this state, sponsored a group plan of insurance for the benefit of your membership

The successful operation of our group plan is so well known to the membership generally that no extended comment upon this point is necessary. Through the group plan, opportunity is furnished to the members of your Society to insure themselves in adequate amounts so as to eliminate the fin inicial hazard of a mulpractice action.

In the field of litigation your Counsel is ple used to again note the splendid work of his associate, Mr. William F. Martin Mi. Martin has had many years of actual court experience in the defense of mal practice ictions. From all parts of the State, from judges, lawvers, and doctors, have come to me expressions of approval regarding. Mr. Martin's high character and his unusual ability as an advocate.

Your Counsel also wishes to note the excellent work done by his associate, Mr Thomas H Clearwater, the attorney for the Society

Mention should also be made of the splendid spirit of loyalty and devotion manifested by your Counsel's entire staff both legal and clerical

With this preliminary statement we note that there were commenced in the present *eleven month* reporting period 185 actions as against 232 actions during the previous reporting period which covered a period of taclive months.

These actions do not include a large number of claims in which we were suc-

cessful in persuading the claimants or their attorneys from bringing suit. There remain a number of claims outstanding in which suit may ultimately be brought.

The Table of Comparisons appended hereto shows that we disposed of in eleven months 208 cases as against 201 cases disposed of in the previous twelve month reporting period. Of the 208 cases disposed of during the reporting period thirty-seven were settled. In 166 actions we have obtained judgment for the physician or they have been disposed of through discontinuance or abatement. In five cases judgments were rendered in favor of the plaintiff.

Of the cases in the Appellate Division we were successful in 4 cases and un-

successful in one.

We note from Table I that there were pending as of January 31, 1936, 602 cases as against 625 cases pending February

Litigation and insurance protection are inextricably interwoven. It is fair to state that without adequate insurance no physician can practice his profession with

financial safety.

In this connection it should be noted that during the present reporting year the Society changed its insurance carrier. The new carrier of our group plan is the Yorkshire Indemnity Company. reasons for the change have been fully explained to the membership in the columns of your STATE JOURNAL.

Excellent work has been done by your Insurance Committee which is composed of Dr. Charles Gordon Heyd, as Chairman, Dr. Frederic E. Elliott, and Dr. Carl Boettiger. This Committee in the first instance considers and passes on all questions pertaining to matters that may arise in the operation of our group plan. The Committee works in cooperation with your Counsel and with your authorized indemnity representative, Mr. Harry F. Wanvig.

Table II gives a comparison of the number of members insured in 1933, 1934, 1935, and 1936, and the number of members in the County societies, and the percentage of insured members in the County societies, and in the entire State Society. The figures are sufficiently clear to obviate the necessity of extended

comment.

Counsel Work

During the period of this report, your Counsel has prepared for publication in the Society's Journal articles in the nature of editorial comment. These editorials have included the following:

Malpractice—Care of Maternity Case Plaintiff's Burden of Proof in Malpractice Action

Autopsies in Cases of Suspicious Deaths

A Salutary Decision

Dentist—Unethical Advertising

The Appellate Division Corrects an In-

Malpractice—Court Exonerates Physician Revocation of License Obtained by Fraud Workmen's Compensation: Physician In-

jured While in Employ of Municipality

Accidental Injury to Patient Physician's Choice of Methods

Restraint of Unlawful Practice of Medi-

Practice of Pharmacy by Aliens Ownership of X-rays

Malpractice—Removal of Uvula During Tonsillectomy

Responsibility of Physician for Negligence of Another Physician

An Interesting Foreign Body Case Antenuptial Contract to Abandon Medical Practice

Your Counsel has also digested and there have been published in the STATE Journal case reports upon malpractice actions which it has been felt were of special interest to the members of the profession. The case reports which were published during the previous year are as follows:

Treatment of Sty Removal of Semilunar Cartilage Treatment of Carcinoma Treatment of Injured Wrist

Death Following Taking of Pill Containing Strychnine

Claimed Negligent Diagnosis and Treatment of Fractured Shoulder

Claimed Negligence in Removal Tubercular Kidney

Negligent Diagnosis

Claimed Negligent Delivery Treatment of Fractured Wrist

Death by Leaping from a Window Burn Discovered Subsequent to Opera-

Claimed Delay in Diagnosis of Mastoiditis Operation upon Prostate Treatment of Cut on Foot X-ray Treatment of Acne

549

Claim for Failure to Recognize Fracture

Treatment of Colles Fracture

Death Following Novocaine Injection

Wrongful Death Action

Removal of Metallic Fragment from Finger

Treatment of Tuberculosis

Facial Paresis Following Mastoidectomy Fracture of Elbow

Electro-Coagulation of Tonsils

Recurrence of Gall Stones Reconstructive Operation on Knee

Confusion of Prescriptions

Death from Removal of Tonsils and Adenoids Intestinal Repair by Use of Murphy

Button
Your Counsel is pleased to learn from

the members of your Society that they find these reports and editorials interesting and instructive.

In addition to his other duties, your Counsel receives frequent requests for

opinions on various subjects. It should be remembered that the Executive Committee of your Society has ruled the requests for legal opinion, whether coming from individual members of your Society or from component County Societies, must in the first instance be referred to that body for action. If the Executive Committee deems the inquiry a proper one for opinion by the legal Counsel it refers the same back to him for reply. Some of the matters upon which advice has been rendered are the following:

- 1. Inquiry from a physician, a member of the Advisory Board, and Otologist for a nursery for pre-school deaf children, as to the legality and advisability of placing on the school records photostatic copies of records containing otological findings in such cases.
- 2. Inquiry from a surgeon as to his liability for the acts of an anesthetist, and the liability of the anesthetist for his own acts,

TABLE I

COMPARISON OF THE NUMBER OF SUITS INSTITUTED AND DISPOSED OF IN 1934-1935 AND 1935-1936

1934-1935		Ins	tituted	Disposed of		
2. Obstetrics, etc. 24 16 19 23 3. Amputations 2 3 3 3 2 4. Burns, x-ray, etc. 28 17 20 26 5. Operations: Abdominal, eye, tonsil, ear, etc. 55 59 51 56 6. Needles breaking 5 3 3 1 7. Infections 21 20 11 21 8. Eye infections 5 2 2 5 5 9. Diagnosis 29 18 23 18 10. Lunacy commitments 3 3 3 11. Unclassified—medical 38 30 49 32 Totals 232 185 201 208 Further Comparisons Actions for death. 25 26 22 25 Infants' actions 19 17 33 20 Totals 44 43 55 45 How Disposed of Settled 19 208 Further Comparisons Actions for defendant, discontinued or abated 19 16 65 Totals 5 20 208 Further Comparisons Appeals: Judgments for defendant 5 5 50 Further Comparisons 19 17 33 20 Totals 45 46 55 45 How Disposed of 5 5 50 Settled 166 5 50 Further Comparisons 19 17 33 30 Totals 40 40 40 40 40 40 40 40 40 40 40 40 40						
2. Obstetrics, etc. 24 16 19 23 3. Amputations 2 3 3 2 4. Burns, x-ray, etc. 28 17 20 26 5. Operations: Abdominal, eye, tonsil, ear, etc. 55 59 51 56 6. Needles breaking 5 3 3 1 1 21 20 11 21 21 20 11 21 21 20 11 21 22 5 5 5 5 5 5 5 5 5 5 5 5 5 9. Diagnosis 29 18 23 18 18 18 10 11 11 11 11 11 12 11 12 11 </td <td>1. Fractures, etc</td> <td>. 25</td> <td>14</td> <td>14</td> <td>21</td>	1. Fractures, etc	. 25	14	14	21	
5. Operations: 'Abdominal, eye, tonsil, ear, etc		. 24			23	
5. Operations: 'Abdominal, eye, tonsil, ear, etc	3. Amputations				2	
sil, car, etc. 555 59 51 56 O. Needles breaking 5 3 3 3 1 7. Infections 21 20 11 21 8. Eye infections 5 2 5 5 5 9. Diagnosis 29 18 23 18 10. Lunacy commitments 3 3 3 3 11. Unclassified—medical 38 30 49 32 Totals 232 185 201 208 Further Comparisons Actions for death 25 26 22 25 Infants' actions 19 17 33 20 Totals 44 43 55 45 How Disposed of Settled 39 37 Judgment for defendant, discontinued or abated 7 156 166 Judgment for plaintiff 6 5 Totals 201 208 Appeals: Judgments for defendant 19 201 208 Appeals: Judgments for defendant 19 201 208 Pending on February 28, 1935 602	4. Burns, x-ray, etc	. 28	17	20	26	
6. Needles breaking 5 3 3 1 7. Infections 21 20 11 21 8. Eye infections 5 2 5 5 9. Diagnosis 29 18 23 18 10. Lunacy commitments 3 3 3 11. Unclassified—medical 38 30 49 32 Totals 232 185 201 208 Further Comparisons Actions for death 25 26 22 25 Infants' actions 19 17 33 20 Totals 44 43 55 45 How Disposed of 5 Settled 156 166 Settled 5 156 166 Totals 6 6 5 Totals 7 201 208 Further Comparisons 40 Settled 5 26 22 25 Infants' actions 19 17 33 20 Totals 44 43 55 45 How Disposed of 5 Further Comparisons 40 Settled 5 20 Further Comparisons 40 Further Comparisons 40 Appeals: Judgments for defendant 5 20 Further Comparisons 4 4 Appeals: Judgments for defendant 60 Further Comparisons 4 4 Appeals: Judgments for defendant 60 Further Comparisons 5 3 4 Pending on February 28, 1935 600 Further Comparisons 600 Further Comparisons 600 Further Comparisons 5 3 4 Pending on February 28, 1935 600 Further Comparisons 600 Further Comparisons 600 Further Comparisons 7 3 4 Pending on February 28, 1935 600 Further Comparisons 600 Further Comparisons 7 3 4 Pending on February 28, 1935 600 Further Comparisons 7 3 1036 600	5. Operations: Abdominal, eye, ton-	•				
7. Infections 21 20 11 21 25 5 8. Eye infections 5 2 2 5 5 9. Diagnosis 29 18 23 18 10. Lunacy commitments 3 3 3 3 11. Unclassified—medical 38 30 49 32 Totals 232 185 201 208 Further Comparisons Actions for death. 25 26 22 25 Infants' actions 19 17 33 20 Totals 44 43 55 45 How Disposed of 39 37 Judgment for defendant, discontinued or abated 156 166 Totals 5 20 20 20 20 20 20 20 20 20 20 20 20 20	sil, ear, etc				56	
11. Unclassified—medical 38 30 49 32				.3	_1	
11. Unclassified—medical 38 30 49 32	7. Infections			11	' 21	
11. Unclassified—medical 38 30 49 32	8. Eye infections		.2	.5	.5	
11. Unclassified—medical 38 30 49 32				23	18	
Totals	10. Lunacy commitments	:::			3	
Further Comparisons	11. Unclassified—medical	. 38	30	49	32	
Actions for death 25 26 22 25 Infants' actions 19 17 33 20 Totals 44 43 55 45 How Disposed of Settled 39 37 Judgment for defendant, discontinued or abated 156 166 Judgment for plaintiff 6 5 Totals 201 208 Appeals: Judgments for defendant 3 4 Judgments for plaintiff 2 1 Pending on February 28, 1935 602 2 1 Pending on Jenuary 31, 1036 602 3 4	Totals	232	185	201	208	
Infants' actions	I	Further Co	mparisons			
Infants' actions	Actions for death	. 25	26	22	25	
Totals	Infants' actions	19				
How Disposed of 39 37						
Settled	Totals	. 44	43	55	45	
Judgment for defendant, discontinued or abated		How Dis	posed of			
Judgment for defendant, discontinued or abated	Settled			39	37	
Judgment for plaintiff	Judgment for defendant, discontinued	1				
Judgment for plaintiff	or abated			156	166	
Further Comparisons Appeals : Judgments for defendant 3 4	Judgment for plaintiff		••	6		
Further Comparisons Appeals : Judgments for defendant 3 4						
Appeals: Judgments for defendant			• •	201	208	
Judgments for plaintiff	<u></u>	Further Co	mparisons			
Pending on February 28, 1935 625			••		4	
Pending on January 31 1036 602	Judgments for plaintiff			2	1	
rending on January 31, 1930 002	Pending on Penruary 28, 1935	. 625			••	
	rending on January 31, 1936	. 602	••		••	

Table II

Comparison of the Number of Members Insured in 1933, 1934, 1935 and 1936 and the Number of Members in the County Societies and the Percentage of Insured Members.*

NUMBER OF MEMBERS	IN TIII	COUN	TY :	OCILILE	AND	1111	I LECIM	INGE U	7 77/	SUKLU III		
		1933			1934			1935			1936	
	\boldsymbol{A}	B	C	\boldsymbol{A}	\tilde{B}	С	\boldsymbol{A}	B	C	Λ	B	С
Albany	257		62	254	146	57	265	164	62	274	179	65
Allegany	31		42	33	14	42	34	16	47	35	16	46
	1,007	516	51	1,013	513	51	1,022	472	46	1,061	505	48
Broome	141		58	145	88	61	159	92	58	169	92	54
Cattaraugus	46	33	72	45	31	69	51	31	61	60	33	55
Cayuga	63	35	56	64	35	55	58	39	67	60	45	75
Chautaugua	93	55	59	89	54	51	88	54	61	90	55	61
Chemung	69	51	74	69	49	71	69	46	67	73	48	66
Chenango	. 33		64	33	22	67	33	20	61	35	21	60
Clinton	29		62	29	16	55	27	15	56	27	17	63
Columbia	37	22	59 65	36 24	21 16	58 67	39 27	21 17	54 63	39 29	19 20	49 69
Cortland	23 27	15 10	37	28	14	50	27 26	14	51	28	13	46
Delaware Dutchess-Putnam	138	74	54	151	77	51	155	85	55	174	85	49
Erie	809	455	56	798	440	55	750	440	59	801	450	56
Essex	20	15	75	20	15	75	21	15	71	23	14	61
Franklin	53	18	34	51	18	35	51	19	37	52	25	48
Fulton	36	22	61	38	25	68	41	27	66	45	27	60
Genesee	28	17	60	28	15	54	27	15	56	28	13	46
Greene	21	14	67	23	14	61	23	16	70	25	19	76
Herkimer	46	37	80	44	34	77	44	32	73	48	34	71
Jefferson	86	46	53	87	46	53	87	46	53	82	48	59
Kings	2,301	1,368	59 50	2,241 19	1,175	52 53	2,221	1,173	53	2,319	1,223	53
Lewis	18 34	9 16	48	31	10 21	70	18 35	11 21	61 60	18 44	12 22	67 50
Livingston	30	13	43	30	14	47	31	19	61	35	19	57
Monroe	467	294	63	453	292	64	448	289	64	453	293	65
Montgomery	49	18	36	52	18	35	52	19	37	52	18	. 35
Nassau	243	146	60	253	150	60	265	169	64	291	186	64
New York	4,077	2,339	57	3,951	2,237	57	3,979	2,244	57	4,227	2,427	57
Niagara	105	75	71	98	73	74	105	76	72	110	80	73
Oneida	200	100	50	191	108	57	200	111	56	207	107	52
Onondaga	340	252	74	333	221	66	325	219	67	342	219	64
Ontario	75 115	38 79	51 69	67 122	39 87	58 71	72 126	40 92	56 73	78	39	50 70
Orange	23	10	43	23	10	43	22	8	36	139 20	97 8	40
Oswego	46	28	61	43	31	72	48	37	77	55	37	67
Otsego	48	33	69	50	26	52	49	32	65	54	29	54
Queens	575	372	65	568	366	64	599	361	60	677	400	59
Rensselaer	118	65	55	107	68	63	109	71	65	108	72	67
Richmond	99	51	52	100	46	46	115	47	41	111	46	41
Rockland	56	29	52	61	28	46	63	33	52	70	31	44
St. Lawrence	64	27	42	61	26	42	63	26	41	70	27	39
Saratoga	120	30 90	60 69	53 133	31 89	59 68	50 127	34	68	55	36	65
Schenectady Schoharie	130 20	90	45	20	11	55	127 21	88 10	69 48	134 20	94	70 60
Schuyler	12	6	50	12	6	50	12	6	50	11	12 7	64
Seneca	22	10	45	22	11	50	26	12	46	24	10	42
Steuben	69	44	64	74	44	60	66	43	65	68	48	71
Suffolk	129	65	51	144	69		155	81	52	181	84	41
Sullivan	37	21	57	38	25	70	40	25	63	44	31	70
Tioga	22	9	41	24	10		26	11	42	26	13	50
Tompkins	59	33	56	59	32		59	35	59	60	36	60
Ulster	69	44	67	69	40		65	41	63	74	41	55
Warren Washington	42	29	69	43	28		44	28	61	52	31	60
Washington Wayne	41 42	19 29	46 69	39 44	18 27		35	18	51	36	18	50
Westchester	485	284	59	515	290		50 540	30 298	60 55	53 564	31 322	58 57
Wyoming	33		36	34	15		33	12	36	304	12	40
Yates	19		79	22	17		23	18	78	24	17	71
-	4 2											
-	13,457	7,925	59	13,299	7,512	56	13,417	7,584	56	14,194	8,013	57
*A-number of mer	mbara .	n Commi					•	·				

^{*}A-number of members in County Society; B-number of members insured; C-percentage insured.

and a further inquiry concerning malpractice insurance indemnity in such cases.

3. Inquiry from a physician suffering from coronary thrombosis and subject to attacks of angina pectoris as to his legal responsibility in case a patient should be unable to obtain his services due to his disability, and the further inquiry as to the manner in which such physician could guard against claims of abandonment by his patients.

4. Communication from a physician, the director of a tuberculosis sanitarium, concerning the liability of such a sanitarium for the acts of members of its resident staff who are not licensed to practice in New York

State.

5. Inquiry from a physician concerning the legal responsibility that may arise where a physician is of the opinion that he should administer tetanus antitoxin, and the patient refuses, and tetanus subsequently develops.

- 6. Inquiry from a component County Society requesting information as to what steps should be taken in a case that had been reported of an attempt by an individual to purchase drugs from office girls in doctors' offices.
- 7. Inquiry from a physician concerning the Statute of Limitations applicable to malpractice actions in New York State.
- 8. Inquiry from a physician, as secretary of a hospital, concerning the liability which might be incurred by the hospital when an anesthetic is given by an intern not licensed to practice medicine.

9. Communication from a physician making inquiries concerning the following subjects:

(a) The advisability of physicians assisting in the compilation of a list of delinquent

(b) Whether a physician who has made a few calls on a patient, and demands payment of a fee which is refused, can discharge himself

10. Inquiry from a physician specializing in x-ray work as to the legal and ethical problems involved in a partnership between a doctor and a layman to operate an x-ray laboratory.

11. Inquiry from a physician concerning the responsibility of the State Insurance fund under the Workmen's Compensation Law for the payment of a physician's fee for treating an injured workman, and further concerning the responsibility of the injured workman's employer for said fee.

12. Communication from a physician as to the extent to which a physician served with a subpoena to testify concerning the facts of a case treated by him may be

required to give opinion evidence as an expert, and to give answers to hypothetical auestions.

13. Communication from a physician requesting information concerning forms, to be signed by patients, both in the case of adults and infants, acknowledging that tetanus antitoxin had been advised and refused before the continuation of treatment by the doctor.

14. Inquiry from a physician as to the legality of providing certain information to

the Life Extension Institute.

15. Inquiry from a physician concerning the legality of a contract, the substance of which was as follows: Dr. A. became associated with Dr. B. upon a salaried basis. Dr. A. agreed that should Dr. B. retire or die, Dr. A. would purchase Dr. B's equipment and the good will of his practice for a stipulated sum. Dr. A. further agreed that he would not practice medicine independently of Dr. B. in two specified counties.

16. Inquiry from the State Medical Association of one of the Western States requesting information regarding malpractice defense in the State of New York, and requesting details as to the number of claims and suits handled by the Society's legal

counsel.

17. Inquiry by a physician as to the extent to which, if at all, his group insurance policy would cover him for the acts of a physician associated with him under an informal partnership.

- Communication from a physician concerning the extent to which a physician, having made a physical examination of a plaintiff in a damage suit pursuant to court order obtained by the defendant, is entitled to testify on the trial concerning his knowledge of the physical condition of the plaintiff.
- 19. Communication from a making the following inquiries concerning medical care under the Workmen's Compensation Law:
- (a) When an employer sends a prospective employee to a physician for a film of his chest. can the interpretation of the said x-ray be given to the State Insurance Fund;
 (b) If such information is given to the State

Insurance Fund, whether or not the roentgen-

ologist may be liable in damages;

(c) Whether a so-called Central Bureau could be formed by the insurance carriers or by the physicians to keep on file records of prospective employees who are diagnosed as having certain diseases,

(d) Whether a roentgenologist would be legally liable, having given such information to

such a Central Bureau.

20. Inquiry from a physician concerning

the extent to which he could safely provide information concerning the physical condition of a person treated by him as a relief

patient,

21. Inquiry from a physician requesting information concerning whether a member who elects to secure malpractice insurance protection from a company other than the carrier of the Group Plan shall be entitled to defense by the Counsel of the State Society.

22. Inquiry from a physical requesting information as to the legal aspects of trauma

and tuberculosis.

23. Inquiry from a component County Society as to the status of a member suspended from the right to practice medicine for a specified period of time.

24. Communication requesting information concerning the following phases of the

Welfare Law:

(a) Whether under the law the Welfare Commissioner may decide that a patient is an indigent so far as his hospital bill is concerned, but self-supporting so far as the doctor's bill is concerned.

- (b) Whether a welfare officer, having authorized medical care, may compel the town welfare officer to pay for that care, or whether the doctor must himself bring suit to enforce the payment of his bill, and the extent to which a doctor may enforce the payment of that bill.
- 25. Inquiry by a component County Medical Society as to whether a doctor who has undertaken for a specified fee and has promised to attend a women during her period of pregnancy, and to attend her with respect to her delivery and postnatal care, upon learning that the patient has a reputation of never paying her bills, is entitled to withdraw from the case.

26. Inquiry by a physician as to the extent to which he is entitled to reveal information concerning a former patient who has died to the attorney for the patient's wife, where an attempt is being made to break the patient's

will.

27. Inquiry from the Medical Society of a mid-Western state concerning the precedents in the State of New York upon the illegality of the practice of medicine by corporations.

28. Inquiry by a physician in charge of a not-for-profit hospital as to (a) the liability of said hospital in damages for alleged acts of malpractice of the members of its staff; and (b) the advisability of such a hospital carrying insurance against such liability.

30. Inquiry by a physician as to the legality of a sterilization operation performed at the express request of a patient, and the liability of a doctor who has performed such an operation in the event the

patient should later decide to sue the doctor.

31. Requests from several physicians for further details concerning cases discussed in your Counsel's articles in the JOURNAL.

32. Communication from a physician requesting information as to forms to be signed by patients giving a doctor permission to render radium treatment, including in such forms an acknowledgement that the result of the treatment is not guaranteed.

33. Inquiry from a physician concerning the legal responsibility that he might incur in administering various types of anesthetic.

34. Inquiry from a physician requesting advice as to the manner in which the physicians in his community might take steps to remedy a situation that had arisen by reason of a doctor continuing to engage in the practice of medicine although his sanity is questioned.

35. Inquiry from a physician for advice as to the best method of procedure for the purpose of avoiding a lawsuit, where in suturing after a delivery a suture needle has broken and remained embedded in the patient's body.

36. Inquiry from a physician concerning the details of a malpractice case tried by your Society's Counsel in which the court exonerated the physician in charge of the x-ray department of a hospital and held responsible the hospital technician.

Your Counsel acting with the Committee on By-Laws has examined various proposed Amendments to the Constitution and By-Laws of the State Society and of a number of component County Societies and has rendered advice and made suggestions in connection therewith.

Your Counsel has also rendered his assistance to one of the component County Societies with respect to its problem concerning the advisability of a reorganization of its legal status as a medical society.

Your Counsel has rendered advice with respect to the re-organization of the Dutchess-Putnam Medical Society pursuant to the permission granted the physicians in Putnam County to organize as a separate component county society, which authority was granted by the House of Delegates at its 1935 meeting.

Your Counsel has also rendered his advice to the Board of Censors of one of the component county societies which sought information as to the details of the method of procedure in disciplinary proceedings.

Your Counsel has also advised from

time to time with the Charman and members of other standing Committees of the Society

Your Counsel has been in conference and consultation with the members of the Committee on Insurance with respect to the various matters which has been referred to them for action

Your Counsel has been in conference with the Board of Trustees and with the Members of the Committee on Medical Trends and his prepared the existing contracts entered into with Thomas R Gardiner involving the Directory, Journal, and Technical Exhibits at the annual meetings

Your Counsel has also been in conference with the Board of Trustices and the Executive Committee and has prepared the existing Contract between the State Society and the Executive Officer

Legislative Advice and Activities
As this report is being written the

Legislature has only been in session for a short time. Main important bills, however have dready been introduced and your Counsel has examined and given his opinion with respect to a number of them which affect the included profession. He has also assisted in the drafting of several bills for introduction to the Legislature of this session.

Conclusion

Once again in concluding this report we do so by expressing our grateful thrules to the many members of your Society who have so generously given of their time and talents in assisting us both in court and out in the defense of malpractice actions. Without their generous assistance we could not have obtained the results shown by this report.

Respectfully submitted,
I ORENZ J. BROSNAN, Counsel
February 1, 1936

REPORT OF COMMITTEE ON WORKMEN'S COMPENSATION

To the House of Delegates, Gentlemen Your Committee on Workmen's Compensation herewith submits a report of its activities for the year

The Special Committee on Worlmen's Compensation was created as the result of the following resolution passed by the House of Delegates on May 13 1935

Resolted, Flast a Special Committee on Workmen's Compensation Procedure consisting of three members be appointed by the President. The duty of this Committee shall be to draw up the specifications and devire a basic plan or model which shall be inthred by the County Medical Societies in order that the idministration of the law will be successful in so far as organized medicine is concerned. This Committee shall act in an advisory capacity with the local County Societies in order to avoid a County Societies in order to avoid a County Society acting automatically in contradiction to the State wide plan. This Committee is to report to the Council or its Executive Committee as soon as possible.

On May 14 1935 a Committee of three was appointed consisting of Dis Chas Gordon Heyd, Chairman Dr David J Kalishi, and Dr Frederic E Elliott Dr Heyd resigned on January 9, 1936 and the Committee was reconstituted with Dr David J Kalishi as Chairman, Dr Frederic E Elliott, and Dr B Wallace Hamilton

The Committee has held continuous sessions since its inception in order to carry out its functions in coordinating the worl of County Societies throughout the State and insuring uniformity of action and as far as possible creating a unanimity of opinion in regard to the provisions of the amended Act. We shall enumerate below some of the details of the various actions of the Board. It may be stated here that the Committee as a whole and the individual members of the Committee, have held over one hundred conferences with representatives of the insurance interests of the State, with employer's organizations, with self-insurers, with the Industrial Commissioner, and with the Industrial Council and with the sub committee of the Industrial Council In addition to these conferences the Commuttee has spent many days of preparatory work prior to conferences before the Department of Labor

The Committee has also held conferences with representatives of the Hospital Associations in order to clarify those provisions of the law which relate to the hospitals participation in Workmen's Compensation medicine. The relationship of the hospital medical staff particularly part and full-time paid hospital physicians and technicians, to the hospitals were de-

fined. These conferences are still in progress and it is our hope that they will lead to a successful definition of the physicians' and hospitals' status in relation to the Workmen's Compensation Act.

The Board has recently concluded a series of conferences with representatives of employers and self-insurers in relation to the establishment of medical bureaus at the place or places of employment. Under Section 13-c a sub-committee of the Industrial Council of the Department of Labor, together with a representative of the Workmen's Compensation Board or of the County Society, will combine to make the necessary inspections, mandatory under the Law. The question as to the number of hours such bureaus shall be covered by qualified physicians during each working day will be decided in each instance on the nature of the hazard presented at the place of employment, the frequency of accidents, and the prompt availability of an outside physician in relation to the type of hazard presented. Up to March 1 no bureaus have been licensed pending the definition of this Chapter of the Law, but now that a formula has been agreed upon for the inspection of the proposed bureaus, County Societies will be instructed to proceed with their inspections and recommendations. In order to facilitate the inspection whenever possible a sub-committee of the Industrial Council will accompany the physicians of the County Societies. No license may be issued without the consent of the County Society or of the Board thereof.

Up to March 1 approximately 11,987 physicians have been qualified by the County Societies or their Boards. In addition to those licensed through this Board approximately 200 physicians have been qualified by the Homeopathic Board and 400 by the Osteopathic Board. According to the figures of the Department of Labor some 13,500 physicians have been qualified throughout the State. Apportioning these to the five compensation districts of the State, we find:

8,147 have been qualified in the New York district:

New York County.	2 062
Bronx County	3 303
Kings County 1	2 1 1/2
Aucens Connty	200
Richmond County	87

Nassau County	288
Suffolk County	126
Rockland County	58
Westchester County	446
•	
Albany district 1,560:	
Dutchess-Putnam Counties	106
Sullivan County	45
Ulster County	89
Greene County	23 24
Schoharie County	37
Warren County	45
Franklin County	44
Albany County	231
Otsego County	40
Schenectady County	69
Montgomery County	44
Saratoga County	52
Essex County	27
Orange County	114
Columbia County	27 32
	37
Delaware County	
Rensselaer County	•
Fulton County	54
Duff-1a district 1 224.	
Buffalo district 1,224:	
Chautauqua County	79
Erie County	617
Allegany County	35 126
Niagara County	65
	O.J
Syracuse district 1,233:	
Jefferson County	83
Onondaga County	303
Herkimer County	46
Madison County	28
Broome County	157 54
Oswego County	47
Cortland County	35
Oneida County	158
Chenango County	32
Lewis County	18
Tioga County	28
St. Lawrence County	67
Rochester district 1,277:	
Monroe County	365
Ontario County	73
Ontario County	. 7ž
Yates County	23
Steuben County	67
Orleans County	22
Wayne County	50
Seneca County	20
Livingston County	43 9
Tompkins County	51
Genesee County	39
Wyoming County	
A complete roster of qualified ph	ysı-

A complete roster of qualified physicians is on file at the office of the Board. Rosters are further classified according to Counties. All County Boards and Societies have been requested to send in lists of physicians qualified by them and

most counties have already complied with this request. A few county Boards have not yet sent in complete lists of physicians or have failed to submit the names of physicians qualified after their first list was submitted. All County Societies are urged to advise the Board at once of the registration of new applicants and to inform the Board when the rating of a registered physician is changed. Physicians are classified according to their field of practice so that the Board has a complete record of the code letter of every qualified physician in the State. In a few of the rural counties the method of qualifying physicans has not been in accordance with suggestions made by the Committee. Such counties have been requested to simplify the designations granted to practitioners as indicated below. A letter covering this point was published in the NEW YORK STATE JOURNAL OF MEDICINE on October 1, 1935, and all county societies were urged in the interest of efficiency and simplicity to reclassify all practitioners to whom multiple designations had been assigned.

From July 1, 1935, to February 15, 1936, a total of \$1,486.88 was spent for the conduct of the business of the Com-

mittee, as follows:

Rent for headquarters in the building

of the Academy of Medicine, 2 East 103 Street	\$156.6
Salaries for clerks and secretaries	483 3
Reprints of the Workmen's Compen-	
sation Law which were distributed	
throughout the State	242.20
Postage	5.49
Printing of application forms and	
instruction sheets and other minor	
expenses	334.0

No fees have been paid to the members of the Committee. The expenses of the Board have been kept down to this low figure by combining the offices of the State Committee on Workmen's Compensation with that of the New York County Society and sharing the expenses on the basis of service rendered.

The chief functions of the State Society are first, the preparation of a fee schedule for the State of minimum charges for medical care. This will be entered into in more detail below. Since the Commissioner has ruled that under Section 13-d the list of especially qualified physicians shall be submitted to him according

to the distribution of the Workmen's Compensation districts of the State and not according to county societies, the Committee of the State Society has taken action to gather the lists prepared by the various county societies and allocate them according to the five compensation districts in the State in accordance with the membership of the County society, or the total number of physicians in each county in relation to the number of county societies in the district. Physicians on these lists will be rotated at intervals so that all physicians submitted for such impartial panels may have an opportunity The County Societies will be asked to replenish these lists at stated intervals. The authorities of the Departlent of Labor and the representatives of the various interested groups have found it convenient to deal with the small State Committee in preference to taking up each matter of discussion with the sixty odd county societies of the State. has been in the interest of efficiency and promptness. The various county society Boards have also referred to this Committee the local matters that presented questions difficult of interpretation and innumerable letters have been received and acted upon by the Committee. In many instances these required an interpretation of one of the sections of the amended law, or direct action on the part of the State Committee with the Industrial Commissioner, the Industrial Council, or the insurance carriers. The experience thus far seems to indicate the absolute necessity for the retention of a small committee on the part of the State Society to protect the interests of the profession and to act as a liaison between the profession, the State officials, and other interested parties. The volume of work is such as to require the full time of at least one fully informed officer with a small committee to act in an advisory capacity.

It is strongly recommended that the State Society set up a continuing committee on workmen's compensation and provide for the services of one member to act as executive director.

Section 3 of the amended Act, Section 24 of such Chapter, as last amended by Chapter 615 of the Laws of 1922, has been amended in such a way that the claim of a physician for medical services

cannot be adjudicated by the Industrial Board which in the past had this power under Section 24. Now only claims of attorneys and counselors-at-law for legal services in connection with any claim arising under this Chapter, and claims for services, or treatment rendered, or supplies furnished in the treatment of person injured outside the State and entitled to compensation, may be assessed by the Industrial Board and become a lien upon the compensation awarded in a manner fixed by the Board. Under the present law since the Industrial Board has no longer the power to assess the costs of medical care and compensation against a non-insured employer, it will be necessary to submit to the legislature an amendment giving the Industrial Board such power. It has come to our attention that such an amendment has now been introduced in the legislature. In the meantime the only recourse a physician has in the payment of a bill against the non-insured person is action in the courts.

As stated above one of the first responsibilities that devolved upon the Committee was the preparation of a fee schedule as required under section 13, chapter 258, of the amended workmen's compensation law:

The commissioner shall prepare and establish a schedule for the state, or schedules limited to defined localities, of minimum charges and fees for such medical treatment and care, to be determined in accordance with and to be subject to change pursuant to rules promulgated by the commissioner. Before preparing such schedule for the state or schedules for limited localities the commissioner shall request the president of the medical society of the state of New York to submit to him a report on the amount of remuneration deemed by such society to be fair and adequate for the types of medical care to be rendered under this chapter, but consideration shall be given to the view of other interested parties. The amounts payable by the employer for such treatment and services shall in no case be less than the fees and charges established by such schedule. Nothing in this schedule, however, shall prevent voluntary payment of amounts higher than the fees and charges fixed therein, but no physician rendering medical treatment or care may receive payment in any higher amount unless such increased amount has been authorized by the employer, or by decision as provided in section thirteen-g herein.

The Committee after numerous meetings, prepared a schedule of fees in consultation with groups of specialists, as well as general surgical and medical practitioners, who had had experience with this type of work. The schedule was based upon prevailing rates chiefly in the metropolitan area. This tentative schedule was submitted to every county medical society in the state for constructive comment. A number of county societies submitted, in response to the Committee's request, schedules of fees which they believed should be adopted. In most instances these schedules were identical with the committee's tentative schedule. In a few instances the county societies asked for higher fees. On the basis of all returns, the Committee drew up a schedule for the metropolitan area which was submitted to the Industrial Commissioner. It was then suggested that it would be preferable to go into conference with the representatives of the insurance carriers and of the self-insurers and other employers of the State, in an endeavor to reach an agreement rather than to submit the schedule to the Commissioner and have him hold hearings on the thousand or more items contained in the schedule. This procedure was suggested to the Industrial Commissioner and having been agreed upon, the Committee began conferences with representatives of the Compensation Insurance Rating Board on June 27, 1935.

Its first meeting was attended by some fifty or sixty representatives of the insurance companies, employers, and other employers organizations, and by your Committee. At this meeting it was agreed that the various insurance and employers interests should be represented by a sub-committee. The sub-committee, acting for these interests, numbered about fifteen men including a number of medical directors of insurance companies. Meetings were held once or twice a week until July 25, and were resumed on September 12. Finally, the insurance interests and your committee agreed upon a schedule which was then submitted to the Industrial Commissioner by the President of the State Society. The Industrial Commissioner thereupon called a number of hearings on the schedule as submitted, to which were invited all interested parties

in accordance with the amended law developed that exception was taken to the fee schedule by certain self-insurers and employers organizations, but the insurance interests supported the schedule as submitted by your Committee, with the exception of a few items upon which agreement had not finally been reached at the time the schedule was submitted Subsequently these differences with the Insurance interests were compromised, and the schedule was accepted by the Commissioner on February 26, 1936 has not yet been promulgated by hun but it is expected that it will be shortly A copy of the fee schedule is herewith appended

[The compensation fee schedule will appear in a forthcoming issue]

It is to be noted that this schedule is for the metropolitan district, and is to be regarded as the minimum fee schedule Agreement may be reached with the insurance carriers in respect to certain items of the fee schedule in those outlying counties which may not have approved Most of the Counties of the schedulc in the State have indicated their satisfaction with the schedule as a whole and their desire to adopt it for their county It is the opinion of your Committee that the schedule should be adopted by the whole state, and given a fair trial for at least a period of one year, after which adjustments may be made where indicated by experience The schedule represents the prevailing rate for persons of the social economic status of the average injured workmen throughout the State We further believe that the schedule is fair and equitable to employers, carriers, and the medical profession, and will not result in increased premiums due to an merease in the cost of medical care say this because it is our belief that the free choice principle will draw into the work a larger number of well-qualified, ethical practitioners, who while providing adequate and sympathetic medical care, will not be interested in prolonging treatments with a desire to profit improperly from this type of work

In addition to the hearings on the fee schedule, your Committee represented the profession at numerous hearings in respect to the various other provisions of the newly amended chapter The following items were considered

- 1 The definition of rehabilitation bure its and rules and regulations for beensing, etc.
- 2 Poster notices to employees and employers regarding the provisions of the new law
- 3 The employer's right to recommend a physician to injured employees
- 4 The composition of the 48 hour and 20 dry notices to be filed by attending physician
- 5 The posting of names of panel doctors on the premises of employer
- 6 The question of medical first aid stations
- 7 The question of chinics maintained by employers
- 8 Application forms and rules and regulations governing the operation of medical bureaus and physicians medical bureaus
- 9 Rules for transfer of patient from one doctor to mother
- doctor to mother

 10 Application forms for a ray and pathological laboratories and standards for
- same
 11 Methods for arbitration of medical
- 12 Question of payment of physicians at hearings Differentiation between physician's testimony and expert testimony
- 13 Medical treatment by hospitals—Definition
- 14 Question of herrings by County Boards for discipline of physicians

As a result of these conferences a series of communications were addressed to the county societies and to the Workmen's Compensation Boards of the county societies in connection with the duties of the county boards and in relation to the interpretation of the various provisions of the law as agreed upon (1) in prelimitary conferences between the interested parties, and (2) by ruling of the Industrial Council

Communication No 2 was concerned with the application form for registration and qualification of all licensed physicians, whether members of the county societies or not, who desired to engage in workmen's compensation practice

The Committee devised an application form after much study and distributed some 50,000 of these forms throughout the State for distribution to all licensed physicians by the county societies or boards

The Committee also devised a code. system for registering all physicians in accordance with the qualifications registered by them on their application forms. The Committee secured a favorable ruling from the Industrial Commissioner concerning the charging of a reasonable fee for such registration. As a result of this the larger county societies were enabled to meet the expense entailed in the setting up of Workmen's Compensation Boards, and other duties devolving upon these Boards.

On July 1 when it became apparent that it would not be possible to work out all the details of the Law by July 1, on which date the law was supposed to go into effect, and before the members of the medical council had been appointed by the Governor, the Committee succeeded by conferences with the Industrial Commissioner and other interested parties in establishing a status quo ante to enable physicians throughout the State to engage in compensation work pending registration which was then being carried on rapidly and the Committee also agreed upon the prevailing fees existing prior to July 1 as standards to be used until the new schedule could be devised and adopted.

As soon as the medical members of the Industrial Council were appointed by the Governor, your Committee began an almost uninterrupted series of conferences with a sub-committee of the Industrial Council, consisting of Dr. Edward C. Podvin, Dr. Wm. Linder, Dr. Horace E. Avers and Messrs, Max Meyer and Thomas Curtis, in regard to the various rules and regulations affecting physicians, insurance carriers, employers, hospitals, pathological and other laboratories, technicians, employers of medical bureaus, and first-aid stations, and other matters involved in Chapter 258 of the amended law. The Committee wishes to express its deep appreciation of the support, helpfulness, and cooperation manifested by the Industrial Council in all its negotiations with the Committee, Conferences are still in progress on many of the provisions of the amended law.

The Committee feels that the Industrial Council and the Industrial Commissioner in the carrying out of their responsibilities under the amended chapter have taken due regard to the interests of all parties concerned. They also think they have been of considerable help to the officials in bringing to them the experience and point of view of the medical profession throughout the State.

The Committee opposed the licensing of lay and incorporated laboratories and bureaus as being inimical to the best interests of the public and of the medical profession in a brief submitted to the Industrial Commissioner, and by him submitted to the Attorney General of the

State for opinion.

The Committee also submitted a brief after hearing before the Industrial Commissioner on the question of the interpretation of section 13-i, chapter 258, on the question of soliciting and posting. As a result of the opinion of the Attorney General on this brief, the posting of names of physicians was prohibited by official ruling of the Industrial Council, and confirmed by the Industrial Commissioner.

The Committee also prepared a brief on the interpretation of section 13-f (2) of chapter 258, concerning the attendance of a physician at a hearing before the

Department of Labor.

On October 17, 1935, the Committee issued to each County Society and published in the State Journal the Rules and Regulations promulgated by the Industrial Commissioner covering chapters 258 and 930 of the Workmen's Compensation law. Copies of these rules and regulations are as follows:

Rules and Regulations Promuigated by the Industrial Commissioner Covering Chapters 258 and 930 of the Workman's Compensation Law

1-All doctors whose applications have been disapproved by the various County Medical Societies may continue to treat workmen's compensation cases until a final decision is rendered by the Industrial Council.

2-All reports, except Form C-104, filed by attending physicians and specialists should be verified before a Notary Public or a Commissioner of Deeds, to insure their value as prima facie evidence in a compensation case.

3-In the event of a serious accident requiring immediate emergency medical aid, an ambulance or any physician may be called to give first aid treatment.

4—Homeopathic and osteopathic societies and boards should receive applications from

homeopaths and osteopaths only and recommend for authorization to treat workmen's compensation cases only homeopaths and osteopaths.

5-All specialists, consultants, etc. shall submit a report of their findings in triplicate; one copy to the Industrial Commissioner, one to the attending physician, and one copy to the employer or insurance carrier. If the specialist acts as attending physician, he should file a 48-hour report with the employer or carrier and with the Industrial Commissioner.

6-A registered physiotherapist may treat workmen's compensation cases at his own office or bureau when the case is referred to him by an authorized physician. The authorized physician should, however, give written directions to the physiotherapist as to the kind of treatment to be rendered and the number of treatments to be given. These directions must be given in writing by the physician and shall constitute a part of the record of the case.

7-Removal of physicians from panels. Section 13-D.

(a)-The doctor accused of misconduct shall be notified of the charges in writing by the Medical Society or Board that recommended him. He shall also be notified as to the date and time of the hearing.

(b)-Careful records shall be kept of the

minutes of the hearing.

(c)—These records, together with the report of the Board of the Medical Society or other Board, with its findings, shall be submitted to the Commissioner.

Appeal by physicians to the Industrial Comcil to be referred to a Sub-Committee to report

findings to Council.

(a)-The doctor appealing and the Medical Society or other Board shall be notified in writing as to the date of the hearing.
(b)—The doctor may be represented by

(c)-Accurate stenographic or stenotype min-

utes of the hearing shall be kept for the files of the Commissioner and Industrial Council.
(d)—Findings of the Committee shall be submitted to the Industrial Council for final

action.

8—Arbitration of Medical Bills.

A panel of physicians is to be appointed by the President of each County Medical Society, who shall submit the names of the physicians on the panel to the Industrial Commissioner. The Commissioner shall, when arranging hearings on medical bills, select two members of each Arbitration Committee from this panel, and two physicians are to be selected by the employer or insurance carrier from the membership of the Medical Society of the State of New York, qualified under this Act. for each arbitration session, the Industrial Commissioner to set the dates for all hearings and notify all interested parties. The Arbi-

tration Committee shall submit to the Industrial Commissioner its decisions, on a form prescribed and provided by the Industrial Commissioner, who will then forward notice of decision to all interested parties. If the physician whose bills are being arbitrated is a member in good standing and duly qualified by the New York Osteopathic Society or the New York Homeopathic Society, the members of such Arbitration Committee are to be appointed similarly and shall consist of physicians of such organizations, the president such organizations to make the designation provided herein.

In the event of disagreement as to the value of medical services rendered, a hearing shall be held in the county in which the doctor practices or in which his main or principal office is located. Notice of this hearing shall be sent to the doctor or hospital who rendered the services, the employer and the insurance carrier, any of whom may appear or be represented, if they so desire. The Arbitration Board shall pass upon the matter in dispute in accordance with Section 13-G of the amended law,

Careful records of the hearing shall be kept in the office of the County Medical Society,

In the event of disagreement as to the value of medical services rendered by members of the New York Osteopathic Society, a hearing shall be held at a location convenient to the interested parties. The Industrial Commissioner is to select two members from the panel of physicians appointed by the President of the New York Osteopathic Society, for each arbi-tration session, and the employer or his insurance carrier is to select two arbitrators from the membership of the New York Osteopathic Society who have been duly qualified under this

The Arbitration Committee shall pass upon the matter in dispute in accordance with Sec-

tion 13-G of the amended law
Careful records of the hearing shall be kept
in the office of the New York Osteopathic Society.

9-In the event of rejection of a physician by a County Medical Society or other Board, the jurisdiction of the County Medical Society or other Board has terminated, and it cannot reconsider its action. Each County Medical Society or other Board must pass upon the application of each physician within thirty days of the receipt of the application and notify the Industrial Commissioner of its action.

10-Bills for x-rays and consultations shall be submitted for payment directly to the employer or carrier by the specialist rendering the service.

11-A hospital may not secure a license to operate a medical bureau to render care to compensation cases.

12-No insurance company or self-insurer may reduce the size of notice to employees (Form C-105), which is to be placed in all places of employment covered by the Act, unless such permission is granted on application to the Industrial Commissioner.

13—Physicians treating claimants in hospitals may secure the signature of claimant for authorization to obtain copies of any necessary hospital records.

14—The physician in attendance in public hospitals must be the judge as to when the "emergency status" of the case has terminated. In case of a dispute, the matter shall be referred to the Compensation Board of the Medical Society of the county in which the hospital is located, for immediate decision.

15—Medical inspectors of insurance companies shall be admitted to hospitals or other institutions where injured employees are confined, upon proper identification, for the purpose of complying with Section 13-J.

16—No license is necessary to operate a first aid station for emergency treatments, but no subsequent treatments are to be rendered by anyone other than a qualified physician.

17—The physician in attendance must seek authorization for a specialist first from the employer or carrier. If unable to secure it, he may apply to the Industrial Commissioner in accordance with Section 13-A-5.

18—The authority of an employer for the services of a specialist in excess of a \$25.00 fee, applies only to the necessity for such services, but the choice of such specialist is entirely within the jurisdiction of the injured worker.

19—All medical bureaus and laboratories in operation on July 1, 1935 shall be charged a license fee, effective July 1, 1935, to and including June 30, 1936.

20—When it is in the interest of the injured employee, and where an x-ray is required and it is impossible to secure the services of a qualified x-ray specialist, the Board of the local County Medical Society may designate a specially qualified individual to take x-ray pictures under the supervision of the attending physician. The attending physician, however, shall render a bill for such service to the employer. This in no way, however, deprives the employer or insurance carrier from having other x-ray pictures taken if they so desire.

21—No advertising matter of any nature, on compensation work, by authorized physicians, medical bureaus, or laboratories, will be permitted.

22—All County Medical Societies and other Boards shall be instructed to first investigate all complaints submitted to them, and if the evidence warrants it,

charges shall be preferred against the physicians, after which the physicians shall be notified in writing of the charges, as well as given a bill of particulars, so that they may be in a position to defend themselves properly at the hearings.

23—Physicians authorized to treat workmen's compensation cases, when requested to supersede another physician must, before beginning treatment of such patient, make reasonable effort to communicate with the attending physician to ascertain the patient's condition. The superseding physician must also advise the attending physician of the name of the person who has requested him to assume care of the case and state the reason therefor. If the second physician cannot contact the attending physician, and the claimant's condition requires immediate treatment, the said physician should advise: the doctor previously in attendance, within 48 hours, that he now has the patient in his care.

24—Hospitals shall render bills for board and room accommodation, medical and surgical supplies, nursing facilities, and routine laboratory service. Bills for all services rendered by physicians in hospitals, including physiotherapy, x-ray, pathology, anaesthesia, medical and surgical care, etc. shall be made out separately and paid directly to the doctor rendering the service.

25—All medical reports filed by attending physicians and specialists must contain the authorization certificate number and code letters.

ELMER F. ANDREWS

Industrial Commissioner

January 3, 1936

The Committee also recommended a restriction of the authority of the Homeopathic and Osteopathic Boards to qualify other than graduates of their own schools. This rule was adopted by the Industrial Council.

The Committee drew up the basic standards for recommending physicians under the new law under the designation "X" (general practitioners) and "S" (specialists). Following is a copy of the code:

X General Practice

S Practice limited to specialty

A General Surgery-major

B Orthopedic Surgery

C Traumatic Surgery—not inclusive of major or open procedures unless also qualified under A or B

D Roentgenology (1) and/or Radiology (2).

E Ophthalmology ´(1), F Laryngology Rhinology (2),and/or Otology (3) G Genito Urinary Diseases

H Dermatology (1) and/or Syphilology

Neurology (1) and/or Psychiatry (2) I Internal Medicine

K Pathology (1), Clinical Pathology (2),

Bacteriology (3)), Chemistry (4), Serology (5) and/or Hematology (6) L Gynecology (1) and/or Obstetrics (2) Physical Therapy M(1)

Tuberculosis and Lung Diseases M(2)

M(3)Gastroenterology M(4)Cardiology

M(5)Minor Surgery M(6) M(7) Anaesthesia Plastic Surgery

M(8) Proctology M(9)Neuro Surgery

M(10) Public Health and Industrial Diseases

M(11) Metabolic Diseases M(12) Immunology and Allergy

M(13) Bronchoscopy

M(14) Endocrinology M(15) Oral Surgery

M(16) Vascular and Veno-therapy

Numerous letters were written in response to questions from county society boards explaining the system of qualification and the use of the code system. One such letter was published in the NEW YORK STATE JOURNAL OF MEDI-CINE, [page 989, October 1, 1935 issue].

Under date of July 19, the Committee took steps to comply with the request of the Industrial Commissioner for a list of especially qualified practitioners under

section 13-d.

Recently your Committee has entered into an agreement with the Industrial Council, after a hearing before the Department of Lahor, to provide a panel of impartial physicians in the same manner as the above panel under section 13-d, to adjudicate questions of difference of medical opinion as to treatment when neither accident nor causal relationship is questioned by the employer or carrier. In such disputed cases where the patient's physician feels that one form of medical treatment is necessary, and the consultant for the carrier or employer is of another opinion, it is thought that the interests of the injured workman will be best served if the two physicians not in accord select from a list of mature. impartial practitioners or specialists a consultant to help adjudicate the matter. The fee for the impartial specialist will be paid by the insurance carrier or employer.

Your Committee made efforts to induce the Industrial Commissioner to furnish the various medical societies with clerical and stenographic help to assist the county societies to do the administrative work which the new medical bill compels them to do, or to make such appropriation as would cover this work. The Commissioner replied that the Compensation Division of the Department of Labor was not in a position to release any of its employees to do this work and that it did not have sufficient funds to employ additional help to assign to this work. The Commissioner suggested as a solution to this problem that the State Medical Society prepare an amendment to this section to permit it to charge an annual fee to all physicians who have secured an authorization and to permit the Society to use the fee to supply the necessary clerical and other help out of the money so obtained. It should be noted in this connection that in addition to the responsibilities of the county societies in registering and qualifying or licensing physicians in the counties, the county society boards are required to participate in many functions under the amended law.

It must examine and license compensation medical bureaus operated by qualified physicians and employers medical bureaus under section 13-c and also laboratories and bureaus engaged in laboratory or x-ray treatment, or in physical therapy. It must also, under section 13-d, investigate and determine all charges of professional or other misconduct by any authorized physician or by any compensation medical bureau licensed under the Act under Rules and Procedures to be determined by the Industrial Council of the Department of Labor and shall report evidence of such misconduct with their determination thereon to the Commissioner. Such investigation, hearing, report, and determination may be made by the Board of an adjoining county.

Under section 13-e the county society or board that has recommended the licensing of a compensation medical bureau may ask the Commissioner to revoke such license for certain reasons mentioned in this chapter.

The Committee has been so busy with the administrative and other work necessitated by the assumption of responsibility under the new law, that it has had little time to prepare an adequate statement of all which it has accomplished, or has attempted to do. At this writing there are still going on conferences and discussions on many aspects of the law which require interpretation and adjudication. The fee schedule itself, while approved by the commissioner, has yet to be announced and published. Arbitration proceedings must await the official promulgation of the fee schedule. As a result of the delay in putting the law fully into effect on July 1, 1935, an opportunity has been given the county society boards to familiarize themselves with their duties, and the State Committee has been in close touch with the county societies in making it possible for the law to operate, pending the many decisions that had to be made. The time is now approaching when the law, as written and interpreted, will be fully in effect. The state and counties societies will be faced with the responsibility of representing the medical profession in all matters pertaining to the practice of medicine and the other administrative and judicial functions described above. The way in which these duties are performed will determine in a large measure public and official opinion as to the ability and reliability of the organized profession to assume major responsibilities in regard to medical and administrative functions.

No less important a function will be the creation of good will and mutual confidence between the profession and the other parties to the law in the interest of proper medical care of the injured employee at a fair and reasonable cost. In all our deliberations we have kept constantly in mind that the law was modified primarily in the interests of the injured employee, but at the same time we have not lost sight of the highest interests of the profession, nor have we been unmindful of the responsibilities and burdens of those employers of labor who must stand the cost of this humanitarian service.

We strongly recommend that the various county societies and the State Society make every effort to uphold and strengthen the work of those committees upon whom devolve the carrying out of the duties and responsibilities which the organized profession have undertaken. Many millions of dollars are involved in the carrying out of the provisions of the Workmen's Compensation Act and of these a goodly percentage is represented by the fees accruing to physicians of the State. In the larger counties it may well be necessary to provide, in addition to the additional clerical help already employed, executive help to direct the work. That such part or full time executive medical help is a necessity for the State Society has been amply demonstrated.

The present Chairman of the Committee wishes to express his appreciation of the valuable and sympathetic counsel of the former Chairman, Dr. Chas. Gordon Heyd. Dr. F. E. Elliott has devoted a major portion of his time since June 1 to the work, and his ability and energy have in a large measure made possible whatever success we have had in carrying out our functions. Dr. Hamilton, who has recently joined the Committee, has served with distinction.

Respectfully submitted,
DAVID J. KALISKI, Chairman
March 1, 1936

REPORT OF THE FIRST DISTRICT BRANCH

To the House of Delegates; Gentlemen:

The First District Branch of the Medical Society of the State of New York, comprising the Counties of Bronx, Dutchess, Putnam, New York, Orange, Richmond, Reckland, and Westchester, held its Twenty-ninth Annual Meeting at the

Hotel Pennsylvania on the afternoon and evening of October 8, 1935. The date and location of the meeting, as well as the special features of the program were decided by the Executive Committee of this Branch at a meeting on Tuesday evening, May 28, 1935.

We were honored by the presence of the President of the Medical Society of the State of New York, Dr. Frederic E. Sondern, who spoke on the dangers of Compulsory Sickness Insurance and stimulated the minds of his audience on the dangers of providing mass medicine by bureaucratic law.

Dr Russell L Cecil, Chairman of the Sub commutee on Pneumonia, of the State Society, spoke of the necessity of educating the laity on the advisability of prompt aduntion to prodromal symptoms of pneumonia, and accentiated the necessity of the prompt use of scrum to obtain miximum benefits.

Because of the increasing interest of the profession in the minagement and treatment of compensable diseases, the following scientific program was presented

Some Phases of Traumatic Surgery, John J Moorhead, M D, New York City

Hand Destruction and Construction, Hugh You Closs MD, New York City Some Dermatores, Their Origin and Irratment, George Miller Mackee, MD,

New York City
Vertebral and Associated Spinal Cord
Injuries Management and Treatment;
Byron Stookey, M.D., New York City

The evening session consisted of a dinner with an address by Mr. Upton Close, whose subject was "White, Black and Yellow" (a consideration of the modern problems of the three races)

Instance as I received no notices of the meetings of the various County Societies in the First District no visitations were made to their meetings To the best of my knowledge, each local County Society has functioned smoothly and normally

Respectfully submitted,
Terry M. Townstnd, President
March 1, 1936

and Health, as a part of the Exposition The Annual Meeting was held on

REPORT OF THE SECOND DISTRICT BRANCH

To the House of Delegates, Gentlemen

The great new responsibility of the component county societies comprising the Second District Branch during the year 1935 arose out of the changes in the Workmen's Compensation Act. In fulfilling their obligations under this law it was necessary for all of them to assume additional financial burdens for elerical workers, and in the case of Kings County for additional office space. While the extra expenditure was met this year by the filing fee, which was collected, it is to be noted that the expense will be a continuing one while the income will be negligible after the first year.

Queens and Nassau Countics saw the completion and opening of new County Hospitals during the year. In both cases the County Society was directly interested in the selection of the staffs and in their

organization

Queens County was given a warning of a new responsibility to come, the George Washington World's Fair, to be held within its boundaries during 1939 and 1940 The County Society responded promptly with the appointment of a World's Fair Committee which has already gone on record as advocating a Permanent National Museum of Hygiene

November 21 at Gurden City, Long Island, continuing the policy mangurated last ve ir under Di Van Kleeck's adminis tration the special feature was the Scientific Lyhibit There were fourteen exhibits from hospitals and individuals, all of them illustrating lesions of the Respiratory I ract A prize for the best exhibit was offered this year and was awarded to the Mary Immaculate Hospital of Janiuca for an exhibit on Anatomy and Embryology of the Tracheobronchial System, prepared by Dr Emil F Koch and Staff Honorable mention was given to St John's Long Island City Hospital for an exhibit on Diagnosis and

A Symposium on Nontuberculous Discases of the Lungs was given during the afternoon The papers were as follows

Serum Treatment of Pneumonia, pre-

1 Pneumonokonioses

pared by Drs

Elmer Kleefield

(a) Experiences with Dust Diseases of the Lungs

William Benenson and

CHARLES T GRAHAM ROGERS, M D
(b) Clinical Experiences (Silicosis
and Asbestosis)

Anthony J Lanza, M D

- 2. Bronchitis and Bronchicctasis, Abraham Braunstein, M.D.
- 3. Carcinoma of the Lung. HENRY M. Moses, M. D.
- 4. The X-Ray Examination of the Lungs. Frederic E. Elliott, M.D.

The Annual banquet featured an address by the President of the State

Society on State Society Problems, and on the Workmen's Compensation Law by the Honorable Elmer F. Andrews, Industrial Commissioner of the State of New York.

Respectfully submitted, CARL BOETTIGER, M.D., President. March 1, 1936.

REPORT OF THIRD DISTRICT BRANCH

To the House of Delegates; Gentlemen:

The Third District Branch, which is composed of the Counties of Albany, Columbia, Greene, Rensselaer, Schoharie, Sullivan, and Ulster held the Twenty-ninth Annual Meeting at the Hendrick Hudson Hotel, Troy, Tuesday, September 24, 1935. The meeting was attended by over 125, and represented all the counties in the Third District. The morning was devoted to operations and clinics at the Troy Hospitals, Pawling Sanatorium and Marshall Sanitarium, A printed program of operations, clinics, and demonstrations was furnished each member at the registration desk at the Hotel, and were available at each Hospital. The program was very diversified and represented all departments of medicine and surgery, including laboratory and electrocardiograph units.

The afternoon meeting started with a luncheon at the Hendrick Hudson Hotel, at which many prominent members of the State Society were present, including the President of the State Society, Dr. Frederic E. Sondern, First Vice President, Dr. Thomas H. Cunningham, Treasurer, Dr. Charles H. Goodrich, Past President, Dr. Arthur J. Bedell, Dr. John P. Cummings, President of the Fourth District, and officers of the component county medical societies. Dr. Sondern spoke briefly of state affairs and especially of the change in Group Insurance from the Aetna to the Yorkshire Company. Brief remarks were made by Judge Parmenter, representing Mayor Burns of Troy, Dr. John D. Carroll, President of Rensselaer County Medical Society, and others at the speakers tables.

The following scientific program was

carried out: Gastric and Duodenal Ulcer Treatment from a Surgical Viewpoint, Warren Wooden, M.D., Rochester; The Clinical Manifestations of Autonomous Nervous System Imbalance, CLEMENT J. HANDRON, M.D., Troy; Cancer of the Vulva and Uterus, Louis C. Kress, M.D., Buffalo; Mortality Factors in Thyroid Surgery, Eldridge H. Campbell, M.D., Albany; Legal Aspects of Malpractice, Hon. Thomas H. Guy, Troy. A very active discussion followed each paper.

The Third District Branch has a coordinating committee and also a committee on Trends and Medical Practice. Both have worked in unison with the State Society during the year. The State Compensation Law, with its important recent amendments, has received the active cooperation of each county society, and the special committees have performed their duties in a commendable manner. There has been much discussion in the counties about the care of indigent cases, and in some counties, arrangements have been made, with Welfare Officers, whereby members of the Medical profession are paid for services rendered. Columbia County continues to function efficiently as a County Health Department.

I wish to take this opportunity to thank the members of the Third District Branch for their attendance at the annual meeting; and again thank the officers of the Branch, the officers and committees of Rensselaer County Medical Society and the speakers at the meeting; all cooperated in making the meeting a success.

Respectfully submitted,
Augustus J. Hambrook, President
March 1, 1936

REPORT OF FOURTH DISTRICT BRANCH

To the House of Delegates, Gentlemen

The Annual Meeting of the Fourth District Branch was held in the auditorium at the Saratoga Spa on Sept. 27 and 28

Notwithstanding the inclement weather it was well-attended. The program was planned in May by the Executive Committee, and proved to be an excellent one. It could not be otherwise when such speakers as Drs. Howard Lahenthal, R. LaF. Cecil of New York City, L. W. Gorham, Albany, and A. L. Lockwood, Toronto, read papers on chest topics. Drs. W. S. McClellan, Saratoga, and Thomas P. Farmer, Syracuse, also con-

tributed in making it an occasion of time well-spent. In the evening of Sept 27 we were addressed by our State President, Dr. F. E. Sondern, on pertinent topics, and he received close attention and applause I would be remiss in this report without acknowledging my appreciation to the Presidents of the eleven counties of the Fourth District, to Dr. Joseph S. Lawrence, Executive Officer, and the Saratoga members, for wholehearted assistance and cooperation.

Respectfully,

I P I CUMMINS, President

March 1, 1936

REPORT OF FIFTH DISTRICT BRANCH

To the House of Delegates; Gentlemen:

The Fifth District Branch held its Annual Meeting the first of October in Watertown We had a very large attendance, and a very instructive and interesting meeting; one of the largest attended meetings we have had in several years. There was a very free discussion of the papers and the members seemed to take an unsual interest in the program. The President of the State Society was with us and gave a very interesting and instructive explanation of the reason for changing the Insurance Carrier and I believe that it was the concensus of opinion of the members.

present that it was a wise move

The different counties comprising the Fifth District are holding their monthly or semi-monthly meetings with good attendance and there is an unusual amount of interest being shown. We are cooperating with officers of the State Society, I believe, 100 per cent

An unusual amount of interest is being taken in the Pieumonia Program by the State and Dr. Farmer of Syracuse is doing some good work along that line

Respectfully submitted, LrRoy F Hollis, President March 1, 1936

REPORT OF THE SIXTH DISTRICT BRANCH

To the House of Delegates, Gentlemen The Annual Meeting of the Sixth District Branch was held in Elmira on September 18, 1935 The session was

well-attended and the addresses created a good deal of interest

The program began promptly at 9 30 A. M. with a paper by Dr. Ethan F. Butler on Cough and Hemophysis. This was followed by a paper on Management of Delayed Umon, Non-Umon, and Malmon of Fractures of the Long Bones by Dr. H. M. Bergaumm of New York City. Dr. A. W. Booth, member of the Board of Trustees of the American Medical Association and Past President of the Medical Society of the State of New York gave an illustrated lecture on The Activities of the American Medical Association. This was followed by The

Treatment of Burns by Dr Leon E Sutton

Immediately after luncheon the following officers were elected President, Dr. Leo P Larkin of Ithaca, First Vice-President, Dr Reeve B Howland of Elmira, Second Vice-President, Dr. George M Mackenzie of Cooperstown; Secretary, Dr Hubert B Marvin of Binghamton, Treasurer, Dr. William A Moulton, Candor

The afternoon's program was resumed with an address on the State Society by President F E Sondern Then followed addresses by Prof Joseph F McCarthy and Dr Geoige W Crile There were in attendance upwards of 175 physicians and lay guests

Seven of the Counties in the Sixth District availed themselves of the State's

postgraduate lectures during 1935. tendance at these lectures showed an improvement over last year, when it was

sixty-two per cent.

All of the Counties are engaged in attempts at diphtheria prevention. Health officials have stimulated a growing interest among members of the profession in the prevention of other communicable dis-Recently the treatment of pneumonia and its prevention have received a great deal of attention. The same is true of cancer.

Postgraduate lectures by the State Society are being better attended and more generally appreciated. They are doing a great deal of good and should by all means be continued. They should, furthermore, be extended to counties not now, having them.

Respectfully submitted,

J. E. WATTENBERG, President

March 1, 1936 ·

REPORT OF SEVENTH DISTRICT BRANCH

To the House of Delegates; Gentlemen:

The Twenty-ninth Annual Meeting of the Seventh District Branch of the Medical Society of the State of New York was held in Canandaigua on Thursday, September 29, 1935.

Through the courtesy and cooperation of Dr. Hans Hanson, Manager of the Veterans' Hospital, the splendid facilities of this institution were placed at the disposal of the District. This gave those attending the meeting an opportunity to inspect the beautiful grounds and buildings in addition to benefiting from the scientific program. Dr. Alfred Armstrong of Canandaigua did much to make the meeting a success.

The Seventh District Branch was honored by the presence of Dr. Frederic E. Sondern, President of the Medical Society of the State of New York. Dr. Sondern

addressed the meeting after the noon recess.

The other speakers on the program were Dr. EDWARD T. WENTWORTH, Rochester, who spoke on The Fractured Calcaneus; Dr. Nelson G. Russell, Buffalo, who discussed Anemia; Dr. JOHN A. KOLMER, Philadelphia, who reviewed his work on Susceptibility, Immunity, and Vaccination in Infantile Paralysis; and Dr. Howard M. Clute, Boston, who covered the Clinical Management of Obstructive Jaundice.

The meeting was well attended and much interest was expressed in the papers presented. It maintained the high standard set by previous meetings of the Seventh

District Branch.

Respectfully submitted, Alfred K. Bates, President

March 1, 1936

REPORT OF THE EIGHTH DISTRICT BRANCH

To the House of Delegates; Gentlemen:

Following a spring conference between the officers of the component societies and the Executive Officer of the State Society, the following desirable topics were selected for the Annual Meeting which was held at Warsaw, on October 3, 1935.

Experiences with Medical Relief Under the T.E.R.A., H. Jackson Davis, M.D.

The Management of Arthritis, Howard K. Thompson, M.D.

Peripheral Vascular Disease, G. TAKATS, M.D.

Although this was an unusually good program it did not draw the attendance that might have been expected. However, the Society was honored by the presence of Dr. Frederic E. Sondern, President of the Medical Society of the State of New York, who addressed the meeting on miscellandous subjects of immediate importance.

The Branch President attended a meeting of the Council held in New York, December 12, 1935, to consider Society matters in the interim between meetings

of the House of Delegates.

It is the opinion of the undersigned that efficiency of the State Society would be greatly increased by expanding the work of the District Branches beyond the annual presentation of scientific programs to include the services of paid, full-time secretaries who should contact and correlate the officers of the over-worked county societies.

The affairs of organized medicine have become too vast and complicated for the small amount of time that can be spared by the average officer or committee of a county medical society.

Respectfully submitted,

RICHARD H. SHERWOOD, President March 1, 1936

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MEDICAL SOCIETY OF THE STATE OF NEW YORK

Annual Meeting, New York City, April 27, 28, 29, 1936

House of Delegates

The regular Annual Meeting of the House of Delegates of the Medical Society of the State of New York will be called to order at 10:00 A.M., Daylight Saving Time, on Monday, April 27, 1936, in the Hotel Waldorf-Astoria.

> SAMUEL J. KOPETZKY, Speaker DANIEL S. DOUGHERTY, Secretary

Annual Meeting

The Annual Meeting of the Medical Society of the State of New York will be held on Tuesday, April 28, 1936, at 7:00 P.M., in the Hotel Waldorf-Astoria.

> FREDERIC E. SONDERN, President DANIEL S. DOUGHERTY, Secretary

Registration

The Hotel Waldorf-Astoria will be the general headquarters. Registration for Delegates will be held on Monday morning, April 27, from 9:00 o'clock; for members on Monday, Tuesday and Wednesday, April 27, 28, 29, from 9:00 A.M.. to 6:00 P.M.

Exhibits

Scientific and Technical Exhibits will be located in the Hotel Waldorf-Astoria.

Scientific Sessions

General Sessions on Tuesday and Wednesday afternoons. Section meetings on Tuesday and Wednesday mornings will be held in the Hotel Waldorf-Astoria.

Hospital Clinic Day

On Thursday, April 30, an all-day Clinic Day will be held in the Hospitals and Universities of Greater New York. Program of these Clinics can be obtained between one and two p.m. on Wednesday, April 29, at the Registration Booth of the Society.

130th Annual Meeting

Grand Ballroom—Hotel Waldorf-As-

toria—Tuesday, April 28, 7:00 P.M.
Calling the Society to order by the
President, Frederic E. Sondern, M.D.

Reading of the minutes of the 129th Annual Meeting by the Secretary, Daniel S. Dougherty, M.D.

The Annual Banquet

The Annual Banquet will be held in the Grand Ballroom of the Hotel Waldorf-Astoria on Tuesday, April 28, at 7:00 P.M. The guests of honor will include Lord Horder, Chief of the Medical Department of St. Bartholomew Hospital, London, Dr. Willard C. Rappleye, Dean, College of Physicians and Surgeons, Columbia University, New York City; and Dr. William M. Lewis, President Lafavette College, Easton, Pa.

10:30 P.M.-Reception and Dance in the Starlight Roof of the Hotel Waldorf-Astoria, tickets will be issued in connection with the Banquet tickets.

Requests for tickets and reservations for tables should be sent to Daniel S. Dougherty, M.D., Secretary, Medical Society of the State of New York, 2 East 103rd Street, New York City. Tickets will be \$5.00. Tables will be allocated in order of receipt of reservations.

Delegates Dinner

Dinner for the Delegates will be served in the Hotel Waldorf-Astoria on Monday following the adjournment of the afternoon session of the House of Delegates. Tickets can be procured from the Secretary of the Medical Society of the State of New York, Daniel S. Dougherty, M.D., 2 East 103rd Street, New York City. Tickets will be \$4.00.

Open Forum

An Open Forum will be held on Wednesday evening, April 29, at 8:15 P.M. in the Grand Ballroom of the Hotel Waldorf-Astoria. The meeting is for the public but admission will be by card only, which can be obtained by writing the Secretary of the Medical Society of the State of New York, Daniel S. Dougherty, M.D., 2 East 103rd Street, New York City.

Validation of Railroad Tickets

Members holding railroad certificates entitling them to a reduction in return railroad fare must have them signed and validated at the Society's Registration Desk before purchasing tickets for the return trip at the special fare allowed to those attending the meeting.

Scientific Program

All Meetings Will Be Held By Daylight Saving Time

GENERAL SESSIONS

PLACE OF MEETING-THE WALDORF-ASTORIA, GRAND BALLROOM

Tuesday, April 28-2:00 P.M.

1. ADDRESS.

The Right Honorable Lord Horder of Ashford, K.C.V.O., F.R.C.P.; Chief of Medical Service, St. Bartholomew Hospital, London, Eng. (invited guest).

 THE EPIDEMIOLOGY, DIAGNOSIS AND TREATMENT OF AMERIASIS.

William M. James, M.D., Panama, R.P. (invited guest).

3. THE TEACHING OF FORENSIC MEDI-CINE.

Harrison S. Martland, M.D., Newark, N. J. (invited guest).

4. Artificial Fever Therapy of Syphilis and Gonococci Infections.

Walter M. Simpson, M. D., Dayton, Ohio (invited guest).

Wednesday, April 29-2:00 P.M.

- 1. THE INFLUENCE OF THE PRESENT DAY DEPRESSION UPON THE NUTRI-TIVE STATE OF THE AMERICAN PEO-PLE.
- James S. McLester, M.D., President of American Medical Association, Birmingham, Ala. (invited guest).
- 2. THE PLACE OF SURGERY IN THE THERAPY OF PEPTIC ULCER.

Urban Maes, M.D., New Orleans, La. (invited guest).

3. MALIGNANT NEOPLASMS OF THE COLON.

Fred W. Rankin, M. D., Lexington, Ky. (invited guest).

4. THE DIFFERENTIAL DIAGNOSIS OF CONDITIONS ASSOCIATED WITH SUGAR EXCRETION.

William G. Exton, M.D., New York.

THE SECTIONS

[All papers read before the Society by members become the property of the Society The original copy of each paper shall be left with the Secretary of the Section Discussers should have their remarks typed and hand them to the Secretary Section meetings shall begin promptly at the hour specified.]

SECTION ON MEDICINE

Chairman.......John S. Lawrence, M.D., Rochester Secretary......Charles D. Post, M.D., Syracuse

Place of Meeting-The Waldorf-Astoria, Roof Garden

Tuesday, April 28-10:00 A.M.

- 1. DIABETES MELLITUS CONSIDERED AS AN ENDOCRINE SYSTEM DISEASE.
- H. Rawle Geyelin, M.D., New York.
 Discussion opened by William S. McCann,
 M.D., Rochester.
- 2. THE INTLRNAL SECRETIONS OF THE SUPRARENAL GLANDS.

Robert F. Loeb, M.D., New York.

Discussion opened by Clayton W. Greene, M.D., Buffalo, and Dana W. Atchley, M.D., $New\ York$.

3 OVARIAN THERAPY IN GYNECOLOGY. C. Arthur Elden, M.D., Rochester.

Discussion opened by Raphael Kurzrok, M.D., New York, and Robert T. Frank, M.D., New York.

4. THE DIFFERENTIAL DIAGNOSIS AND TREATMENT OF TUMORS IN THE REGION OF THE PITUITARY GLAND.

Leo M. Davidoff, M. D., New York.
Discussion opened by Eldridge H. Campbell,
Jr., M.D., Albany.

Wednesday, April 29-10:00 A.M. Symposium on Arthritis:

- 1. CLASSIFICATION AND DIFFERENTIAL DIAGNOSIS OF JOINT DISEASES. Walter Bauer, M.D., Boston, Mass. (invited guest).
- Blood Changes in Arthritis.
 Russell LaF. Cecil, M.D., New York.
- 3. The Use of Heat in the Management of Infectious Arthritis.

Stafford L. Warren, M.D., Rochester.

4. TREATMENT OF ARTHRITIS, WITH PARTICULAR REFERENCE TO VACCINES AND ALLERGIC REACTIONS.

Charles H. Hitchcock, M.D., Syracuse. Discussion opened by Homer F. Swift, M.D., New York, Nelson G. Russell, M.D., Buffalo. Ralph H. Boots, M.D., New York, Kristian G. Hansson, M.D., New York, and Donald E. McKenna, M.D., Brooklyn.

SECTION ON SURGERY

Chairman......John C. Brady, M. D., Buffalo Secretary.....Thomas M. Brennan, M.D., Brooklyn

Place of Meeting-The Waldorf-Astoria, Ballroom

Tuesday, April 28-10:00 A.M.

- A Symposium on Diseases of Liver, Gall Bladder and Pancreas.
- 1. THE LIVER AND GALL BLADDER DIS-EASE.

Chas. Gordon Heyd, M.D., New York.

DISCUSSION opened by Michael A. Sullivan,
M.D., Lackawanna.

2. The Surgical Aspects of Acute Cholecystitis.

George J. Heuer, M.D., New York.

Discussion opened by Alexander Nicoll,
M.D., New York.

3. The Surgical Lesions of the Pan-

Dean Lewis, M.D., Baltimore, Md. (invited guest).

Discussion opened by William D. Johnson, M.D., Batavia.

Wednesday, April 29-10:00 A.M.

1. THE SURGICAL ASPECTS OF ACUTE PERIPHERAL VASCULAR DISEASE.

Geza DeTakats, M.D., Chicago, Ill. (invited guest).

DISCUSSION opened by Beverly C. Smith, M.D., New York.

 THE PRESENT TYPES OF SURGICAL ATTACK ON MALIGNANT HYPERTEN-SION.

Frederick S. Wetherell, M.D., Syracuse.

DISCUSSION opened by Tohn J. Morton, Jr., M.D., Rochester.

- 3. THE PRESENT STATUS OF SURGERY OF THE SYMPATHETIC NERVOUS SYSTEM. W. J. Merle Scott, M.D., Rochester. Discussion opened by Wallace B. Hamby, M.D., Buffalo.
- Pyoperitoneum.

Charles H. Goodrich, M.D., *Brooklyn*. General Discussion.

SECTION ON OBSTETRICS AND GYNECOLOGY

Place of Meeting-The Waldorf-Astoria, Jansen Suite

Tuesday, April 28-10:00 A.M.

1. The Physicians Responsibility in Community Obstetrics.

George W. Kosmak, M.D., New York.
Discussion opened by Thomas P. Farmer,
M.D., Syracuse, and Benjamin P. Watson,
M. D., New York.

2. THE INJECTION OF VARICOSE VEINS DURING PREGNANCY.

Goode R. Cheatham, M.D., and Abel E. Peck, M.D., Endicott.

DISCUSSION opened by Harold J. Shelley, M.D., New York.

3. Full Term Extra-uterine Preg-

Harry Hudnall Ware, Jr., M.D., Richmond, Va. (invited guest).

Discussion opened by Alfred C. Beck, M.D.

Brooklyn, and Alfred M. Hellman, M.D., New York.

 THE ROLE OF INTRAVENOUS RESUSCI-TATION IN ASPHYXIA NEONATORIUM, Robert A. Wilson, M.D., Brooklyn.

DISCUSSION opened by Ralph M. Beach, M.D., Brooklyn, and Arthur C. Martin, M.D., Hempstead.

Wednesday, April 29-10:00 A.M.

1. THE USE OF LOCAL ANESTHESIA IN VAGINAL PLASTIC OPERATIONS.

Harvey B. Matthews, M.D., and Vincent P. Mazzola, M.D., Brooklyn.

Discussion opened by Vincent P. Mazzola, M.D., Brooklyn.

2. THE HORMONAL CONTROL OF THE HUMAN UTERUS.

Raphael Kurzrok, M.D., New York.
Discussion opened by Philip E. Smith,
Ph.D., New York (invited guest).

3. THE RETENTION OF LIPIODOL IN THE FALLOPIAN TUBES.

Isidor C. Rubin, M.D., New York,
Discussion opened by Walter T. Dannreuther, M.D., New York.

4. THE MENOPAUSE.

Robert T. Frank, M.D., Morris A. Goldberger, M.D., and Udall J. Salmon, M.D., New York.

Discussion opened by Samuel R. M. Reynolds, Ph.D., Brooklyn (invited guest).

SECTION ON PEDIATRICS

Tuesday, April 28-10:00 A.M.

- TREATMENT OF SYDENHAM'S CHOREA WITH TYPHOID PARATYPHOID VAC-CINE.
 Donald J. Weisman, M.D., New York.
 Discussion opened by Paul W. Beaven, M.D., Rochester.
- 2. SIMPLE MILK MIXTURES IN THE FEEDING OF PREMATURE INFANTS, Abraham Tow, M.D., New York.
 DISCUSSION opened by Bela Schick, M.D., New York.
- 3. THE DIAGNOSIS AND TREATMENT OF ACCIDENTAL POISONING IN CHILDREN. John Aikman, M.D., Rochester.

Discussion opened by Frank vander Bogert, M.D., Schenectady.

4. RELATIONS OF ACID BASE EQUI-LIBRIUM TO THE PATHOGENESIS AND TREATMENT OF WILOOPING COUGH, Joseph C. G. Regan, M.D., Brooklyn, Discussion opened by Harry Bakwin, M.D., New York.

Wednesday, April 29-10:00 A.M.

- 1. Results in 63 Cases of Poliomyelitis Treated in the Respirators at Willard Parker Hospital.
 - M. Bernard Brahdy, M.D., Mt. Ver-

Discussion opened by Wardner D. Ayer, M.D., Syracuse.

Hypogonadism and Cryptorchidism in Children.

Murray B. Gordon, M.D., Brooklyn.

Discussion opened by Simon A. Beisler,
M.D., New York.

 THE ROLE OF THE THYMUS GLAND IN GROWTH AND DEVELOPMENT. AN EXPERIMENTAL STUDY.

Leonard G. Rowntree, M.D., Philadelphia, Pa. (invited guest).

Discussion opened by Walter Timme, M.D., New York,

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman......John F. Fairbairn, M.D., Buffalo Secretary.....Walter S. Atkinson, M.D., Watertown

Place of Meeting-The Waldorf-Astoria, Assembly Room N-P-R

Tuesday, April 28—9:00 A.M. Instructional Hour 9:00 A.M. to 10:00 A.M. Hearing Tests, Interpretation in the Light of Recent Research.

Edmund Prince Fowler, M.D., New York.

DISCUSSION opened by Mr. R. L. Wegel, Research Physicist (invited guest).

1. Non-Healing of Mastoid Wounds; Causes and Remedies.

Ralph Almour, M.D., New York.

DISCUSSION opened by Marvin F. Jones, M.D., New York, and William A. Krieger, M.D., Poughkeepsie.

The Treatment of Fractures of the Bones of the Face.

Gerard H. Cox, M.D., Glen Cove.

DISCUSSION opened by Jay D. Whitham, M.D., New York, and D'Arcy McGregor, M.D., Buffalo.

3. Conservative Treatment of Nasal Sinus Diseases.

Harold Hays, M.D., New York.

DISCUSSION opened by Irving W. Voorhees, M.D., New York, and Chester C. Cott, M.D., Buffalo.

- 4. VASOMOTOR RHINITIS.
- C. Stewart Nash, M.D., Rochester.
 DISCUSSION opened by Lee M. Hurd, M.D.,
 New York.

Wednesday, April 29—9:00 A.M. Instructional Hour 9:00 to 10:00 A.M.

Ocular Therapeutics.

Sanford R. Gifford, M.D., Chicago, Ill. (invited guest).

1. Sources of Grafts for Plastic Surgery about the Eyes.

John M. Wheeler, M.D., New York.
DISCUSSION opened by Webb W. Weeks,
M.D., New York, and John F. Gipner, M.D.,
Rochester.

2. Allergy as it Affects the Eyes. Arthur J. Bedell, M.D., Albany.

DISCUSSION opened by Foster Kennedy, M.D., New York, and Conrad Berens, M.D., New York.

3. Sympathetic Ophthalmia Following Intraocular Operations. Harold H. Joy, M.D., Syracuse.

Discussion opened by Albert C. Snell, M.D., Rochester, and Harry M. Weed, M.D., Buffalo.

4. THE PRESENT STATUS OF THE SUR-GICAL TREATMENT OF RETINAL DE-TACHMENT.

Mark J. Schoenberg, M.D., New York. Discussion opened by John H. Dunnington, M.D., New York, and Searle B. Marlow, M.D., Syracuse.

SECTION ON DERMATOLOGY AND SYPHILOLOGY

Chairman.....Louis Tulipan, M.D., New York Secretary.....Clarence H. Peachey, M.D., Rochester

Place of Meeting-The Waldorf-Astoria, Assembly Rooms J-K-L

Tuesday, April 28—10:00 A.M.

1. Sensitivity to External Irritants in Industry.

Louis Schwartz, M.D., New York.

Discussion opened by Earl D. Osborne, M.D., Buffalo.

2. The Role of Food Allergy in Diseases of the Skin.

Joseph G. Hopkins, M.D., New York.

DISCUSSION opened by George M. MacKee,
M.D., New York.

3. ALLERGIC DERMATOSES DUE TO FUNGI.
Samuel M. Peck, M.D., New York.
Discussion opened by Fugers F. Troub

Discussion opened by Eugene F. Traub, M.D., New York.

4. The Role of Allergy in Drug Eruptions.

E. William Abramowitz, M.D., New York.

Discussion opened by Howard Fox, M.D., New York.

5. Allergic Manifestations in Dermatology.

Marion B. Sulzberger, M.D., New York.

Discussion opened by Maximilian A. Ramirez, M.D., New York.

Wednesday, April 29-10:00 A.M.

1. TREATMENT OF ALOPECIA AREATA. Herbert H. Bauckus, M.D., Buffalo. Discussion opened by Edward R. Maloney,

M.D., New York.TREATMENT OF PSORIASIS WITH COLLOIDAL MANGANESE.

Henry D. Niles, M.D., New York.

DISCUSSION opened by Frank C. Combes, M.D., New York.

3. Specific Therapy of Rhus Dermatitis.

Herman Sharlit, M.D., New York.

Ben A. Newman, M.D., New York.

Discussion opened by Oscar L. Levin, M.D., New York.

4. BISMUTH BY MOUTH IN THE TREAT-MENT OF SYPHILIS. (An Experimental Study.)

Charles R. Rein, M.D., New York.

Discussion opened by A. Benson Cannon, M.D., New York.

5. THERAPY WITH VARIOUS HORMONE PREPARATIONS IN ACRE VULGARIS.

Theodore Rosenthal, M.D., New York.

Discussion opened by Albert R. McFarland,
M.D., Rochester.

SECTION ON PUBLIC HEALTH, HYGIENE AND SANITATION

Chairman..........John A. Conway, M.D., Hornell Secretary.......Lewell T. Genung, M.D., Ithaca

Place of Meeting—The Waldorf-Astoria, Jansen Suite (Blue room, entrance thru 4-U)

Tuesday, April 28-10:00 A.M.

- 1. Report of Poisoning by Cicuta Maculata (Musquash).
- D. Roger Haggerty, M.D., Arkport.
 Discussion opened by John A. Conway,
 M.D., Hornell.
- 2. A Proper Dietary as a Public Health Measure.

Edward J. Wynkoop, M.D., Syracuse.

Discussion opened by George R. Murphy,
M.D., Elmira.

3. PNEUMONIA PREVENTION, MANAGE-MENT AND SERUM TREATMENT. Rufus I, Cole, M.D., New York.

Discussion opened by Edward S. Rogers, M.D., Albany.

Wednesday, April 29-10:00 A.M.

- Sypitilis Control in the Scandinavian Countries,
 - David J. Kaliski, M.D., New York.

Discussion opened by Thomas Parran, Jr., M.D., Albany

- 2. MUNICIPAL CONTROL OF SYPHILIS. Thomas F. Laurie, M.D., Syracuse.
- 3. Present Status and Technique of Tuberculin Testing.

John K. Deegan, M.D., Albany.

Discussion opened by N. Stanley Lincoln, M.D., Mt. Morris.

SECTION ON NEUROLOGY AND PSYCHIATRY

Chairman.....Byron Stookey, M.D., New York Secretary.....Lloyd H. Ziegler, M.D., Albany

Place of Meeting-The Waldorf-Astoria, Assembly Room 4-M

Tuesday, April 28-10:00 A.M.

1. A STUDY OF TRAUMATIC LESIONS OF THE SPINE.

John E. Scarff, M.D., New York.
Discussion opened by Foster Kennedy, M.D.,
New York.

- 2. Oxygen Consumption in Organic Psychoses,
 - John Y. Notkin, M.D., Poughkeepsie.
 Discussion opened by S. Bernard Wortis,
 M.D., New York.
- 3. NEUROLOGICAL COMPLICATIONS OF SUBACUTE BACTERIAL ENDOCARDITIS.

 Josephine B. Neal, M.D., Henry W. Jackson, M.D., and Emanuel Appelbaum, M.D., New York.

- Discussion opened by Joseph H. Globus, M.D., New York.
- EXTRANEURAL PATHOLOGY OF PARA-NOIA AND MANIC DEPRESSIVE PSY-CHOSES.

Nolan D. C. Lewis, M.D., Washington, D.C. (invited guest).

Discussion opened by Joseph H. Globus, M.D., New York, and Armando Ferraro, M.D., New York.

Wednesday, April 29-10:00 A.M.

- Symposium on the Nervous System in Relation to Automobile and Industrial Accidents.
- 1. THE CHAIRMAN'S INTRODUCTORY REMARKS.

Byron Stookey, M.D., New York.

2. Selected Tests Used in Industry to Measure Specification Abilities and Aptitudes.

Michael Lake, M.D., New York.

3. CERTAIN NEUROLOGICAL PHASES OF THE PROBLEM OF MOTOR CAR ACCI-DENTS. Cassius H. Watson, M.D., New York.

4. Responsibilities of the Individual in Automobile Accidents.

Colonel Harold Fowler, First Deputy Commissioner, Police Dept., New York (invited guest).

Discussion opened by Charles A. Mc-Kendree, M.D., New York.

SECTION ON UROLOGY

Chairman	.Ernest M	. Watson,	M.D., Buffalo
Vice-Chairman	Fedor L	Senger, I	M.D., Brooklyn
Secretary			

Place of Meeting-The Waldorf-Astoria, Palm Room, 18th Floor

Tuesday, April 28-10:00 A.M.

1. Renal Function Following Trauma of the Kidney.

John H. Powers, M.D., Cooperstown.

Discussion opened by Oswald Swinney
Lowsley, M.D., New York.

2. RECENT ADVANCES IN CLINICAL CYSTOMETRY BY MEANS OF THE MICROCYSTOMETER.

Irving Simons, M.D., and William Bisher, M.D., New York.

DISCUSSION opened by Ernest L. Brodie, M.D., Buffalo.

3. Factors Influencing the Formation and Dissolution of Renal Calculi and Their Application to the Prevention of Recurrent Renal Lithiasis.

Charles C. Higgins, M.D., Cleveland, Ohio (invited guest).

DISCUSSION opened by Leo E. Gibson, M.D., Syracuse.

Wednesday, April 29-10:00 A.M.

1. An Evaluation of the Present Knowledge of Urethral Disease in Women.

Arthur Hilton Paine, M.D., Rochester.

Discussion opened by H. Dawson Furniss, M.D., New York.

2. Newer Pathologic Concepts of Bladder Tumors with a Report on an Improved Technique in Treatment.

Russell S. Ferguson, M.D., New York

DISCUSSION opened by Edward L. Keyes, M.D., New York.

THE RATIONALE OF TREATMENT IN URINARY INFECTION.

David M. Davis, M.D., *Philadelphia*, Pa. (invited guest).

DISCUSSION opened by Frederick J. Parmenter, M.D., Buffalo.

SECTION ON RADIOLOGY

Chairman	Leo	P. L	arkin,	M.D.,	Ithaca
Vice-Chairman	Cliffor	d R.	Orr,	M.D.,	Buffalo
SecretaryW	illiam P	. Ho	ward,	M.D.,	Albany

Place of Meeting—The Waldorf-Astoria, Carpenter Salon

Tuesday, April 28—10:00 A.M.

1. Cancer of the Esophagus.

William L. Watson, M.D., New York.
DISCUSSION opened by D. E. Ehrlich, M.D.,
New York and James Ewing, M.D., New York.

2. ROENTGENOLOGICAL CONSIDERATION OF DYSPHAGIA OF ESOPHAGEAL ORIGIN.

John M. Barnes, M.D., Buffalo.

Discussion opened by Barney B. Smith, M.D., Buffalo.

3. Roentgen Diagnosis of Malignant Tumors of the Stomach.

George T. Pack, M.D., New York and Harry Hauser, M.D., Cleveland, Ohio (invited guest).

Discussion opened by James M. Flynn, M.D., Rochester.

4. PRESENTATION OF AUTOMATIC ELEC-TRIC SERIALOGRAPH WITH CASSETTE HOLDER.

Moses Einhorn, M.D., New York.

Wednesday, April 29-10:00 A.M.

1. IRRADIATION IN THYROTOXICOSIS.

J. Thompson Stevens, M.D., New York.

Discussion opened by Lucas S. Henry, M.D., Syracuse.

2. Hodgkins Disease with Bone Manifestations.

Samuel George Schenck, M.D., Brooklyn.

Discussion opened by Lloyd F. Craver, M.D., New York.

3. Suppuration in the Pneumath Petrous Apex.

Henry K. Taylor, M.D., New York.

Discussion opened by William P. Howard M.D., Albany and Frederick M. Law, M.D. New York.

4. A REVIEW OF THE BONY CHANGES IN CASES OF ARTHRITIS TREATED BY FEVER THERAPY.

S. C. Davidson, M.D., and Stafford L. Warren, M.D., Rochester.

SECTION ON INDUSTRIAL MEDICINE AND SURGERY

Chairman......James M. Hitzrot, M.D., New York Secretary.......Cassius H. Watson, M.D., New York

Place of Meeting-The Waldorf-Astoria, Carpenter Suite

Tuesday, April 28—10:00 A.M. Symposium on Silicosis.

1. THE CAUSE AND PATHOLOGY OF SILI-COSIS.

Leroy Gardner, M.D., Saranac Lake (invited guest).

DISCUSSION opened by David Reisner, M D, New York.

THE DIFFERENTIAL DIAGNOSIS OF SILICOSIS FROM OTHER PULMONARY DISEASES.

George G. Ornstein, M.D., New York. Discussion opened by William S. McCann, M.D., Rochester.

3. THE CLINICAL FEATURES AND INDUSTRIAL SIGNIFICANCE OF SILICOSIS.

Anthony J. Lanza, M.D., New York (invited guest).

Discussion opened by Leonard Greenburg, M D, New York.

Wednesday, April 29-10:00 A.M.

Symposium on Industrial Diseases and Accidents to the Hand.

1. INDUSTRIAL DERMATOSES OF THE HAND.

Benjamin J. Slater, M.D., Rochester.

Discussion opened by George M. Lewis,
M.D., New York.

 THE INFECTIONS OF THE HAND. Robert F. Barber, M.D., Brooklyn. Discussion opened by Preston A. Wade, M.D., New York.

3. Injuries to the Tendons and Nerves of the Hand.

John H. Garlock, M.D., New York,
Discussion opened by Mather Cleveland,
M.D., New York.

4. THE FRACTURES OF THE HAND.

Clay Ray Murray, M.D., New York.

Discussion opened by John J. Moorhead,
M.D., New York.

SESSION ON PHYSICAL THERAPY

Chairman..........Richard Kovacs, M.D., New York Secretary.......Lee A. Hadley, M.D., Syracuse

Place of Meeting-The Waldorf-Astoria, Ballroom, 2nd Balcony, West Side

Wednesday, April 29-10:00 A.M.

 Physical Measures in Proctological Conditions. Rudolph V. Gorsch, M.D., New York. Discussion opened by F. Leslie Sullivan, M.D., Scotia, and John C. M. Brust, M.D. Syracuse.

2. Diagnosis and Treatment of Peripheral Vascular Disease by Physical Agents.

William Bierman, M.D., New York.

DISCUSSION opened by Kristian Gosta Hansson, M.D., New York, and Joseph Kovacs, M.D., New York.

3. Certain Aspects of Blood Flow. Thomas P. Sprunt, M.D., Baltimore, Md. (invited guest).

Discussion opened by Peter Irving, M.D., New York, and Norman E. Titus, M.D., New York.

4. THE TREATMENT OF GENERAL PARESIS BY ULTRA HIGHFREQUENCY HEATING.

Leland E. Hinsie, M.D., New York, and Joseph R. Blalock, M.D., New York.

Discussion opened by Walter M. Simpson, M.D., Dayton, Ohio (invited guest) and William Bierman, M.D., New York.

CLINIC DAY

Thursday, April 30

Clinics in all divisions and specialties of medicine will be given in the following hospitals:

Detailed information available on Wednesday, April 29th, at 1:00 P.M. at the Registration Desk and Bulletin Board in the Silver Corridor, Waldorf-Astoria.

Knickerbocker Hosp70 Convent Ave. Lenox Hill Hosp111 E. 76th St.
Lincoln Hosp141st St. and Concord Ave.
Montefiore Hosp. Gun Hill Rd. & Jerome Ave.
Morrisania Hosp168th St. & Gerard Ave.
Mount Sinai Hosp 1 E. 100th St.
New York Hosp525 E. 68th St.
New York Orthopedic Hosp420 E. 59th St.
Polyclinic Hosp335-361 W. 50th St.
Roosevelt Hosp428 W. 59th St.
Hosp. for Ruptured & Crippled. 321 E. 42nd St.
Woman's Hosp110th St. & Amsterdam Ave.
Post-Graduate Hosp2nd Ave. & 20th St.
Manhattan Eye, Ear & Throat Hosp.
210 E. 64th St.
New York Eye & Ear Infirmary,
218 Second Ave.

Scientific Exhibit

Corridors—East, South and West, Ground Floor and Mezzanine Floor of Grand Ballroom, and Third Floor Foyer Lexington Avenue Side, Waldorf-Astoria Hotel.

BOOTH NO. 1

Dr. William M. James, Dr. Lawrence Getz, The Herrick Clinic. Panama, R. P.

THE PATHOLOGY OF AMEBIASIS.

Description: A demonstration of the pathological lesions in amebiasis and of the amebia histolytica in stools and cultures. A clarification of the true etiology of amebiasis and its relation to the associated colitis and a differentiation of the pathogenic from the nonpathogenic amebae. Photographs illustrating the pathological fields will also be displayed and several specimens showing the gross pathology and characteristic lesions of the disease.

NO. 2

Dr. Simon L. Ruskin, Bronx Hospital, New York.

CENTRAL AND VEGETATIVE INNERVATION OF THE NASAL ACCESSORY SINUSES.

Description: Transparencies and charts will demonstrate both the sectional anatomy and dissection diagrams of the innervation of the nasal accessory sinuses. Relationship to symptomatology will be pointed out.

NO. 3

Dr. William E. Caldwell, Dr. Howard C. Maloy, Dr. D. Anthony D'Esopo, Sloane Hospital for Women, New York.

CLINICAL AND ROENTGENOLOGICAL RECOGNITION OF ANATOMICAL VARIATIONS IN FEMALE PELVES AND THEIR OBSTETRICAL SIGNIFICANCE.

Description: (1) Some 100 large half tone illustrations portraying pelvic variations and the mechanism of labor. (2) A precision stereoscope demonstrating the roentgenological technic. (3) Fifteen skeletal mounted pelves.

NO. 4

Dr. Rapheal Schillinger, Brooklyn.

CHRONIC NASAL SINUSITIS.

Description: Roentgen studies of mucosal function, with the aid of opaque medium. Description of an opaque survey and its application in the diagnosis and treatment of nasal sinusitis.

NO. 5

Dr. Charles Murray Gratz, Post Graduate Hospital of Columbia University, New York.

BIOMECHANICS. A NEW APPROACH TO THE STUDY OF LOW BACK PAIN AND ARTHRITS.

Description: Summary charts of biomechanical studies of fascia are presented; adhesions in the fascial spaces are shown histologically; anatomical studies are demonstrated with radiographs of the fascial planes after they have been injected with air. Fascial adhesions are regarded as causes of symptoms in low back pain and arthritis by interfering with the normal mechanics of the soft tissues.

NO. 6

Dr. James S. Edlin, Dr. Pol N. Coryllos, Polyclinic Hospital, New York.

PULMONARY DISEASES.

Description: X-rays and photographs demonstrating routine clinical procedures. Mantoux test, Lipiodol injection, collapse therapy, extra-pulmonary tuberculosis, non tuberculous pulmonary diseases, anomalies, etc.

NO. 7

Dr. Irving S. Wright, New York Post-Graduate Medical School and Hospital, New York.

PERIPHERAL VASCULAR DISEASE.

Description: Charts, apparatus and x-rays of arteries (Arteriograms) showing recent studies in peripheral vascular disease. The effect of tobacco on this circulation. The therapeutic use of cholines; tissue extract; ceritamic acid. NO. 8

Dr. I. Seth Hirsch, College of Medicine, New York University and Beth Israel Hospital, New York.

Kymoroentgenography.

Description: A method of graphically recording cardiac movement. Motion picture

NO. 9

Dr. William L. Corcoran, Dr. G. Allen Robinson, Tumor Institute, St. Clares Hospital, New York.

CANCER EXHIBIT BY TUMOR INSTITUTE, ST. CLARFS HOSPITAL.

Description: The diagnosis and treatment of cancer by combined methods will be shown. Special attention will be given to early diagnosis, radiation technique, electrosurgery, intragastric photography and the study of living tumor tissue by iridescent microscopy.

NO. 10

Dr. Adoniram J. Quimby, Polyclinic Hospital, New York.

DEPARTMENT OF ROENTGENOLOGY.

Description: Transparencies of cranial, chest and abdominal lesions. Bone sarcoma.

NO. 11

Dr. Edward F. Hartung, New York Post-Graduate Hospital, New York.

CHRONIC ARTHRITIS.

Description: The blood in arthritis. The gastrointestinal tract, teeth, tonsils, gastric acidity, gall bladder, colon. Physiotherapy. Orthopedic considerations. The treatment of arthritis.

NO. 12

Dr. Edwin Boros, Bronx Hospital, New York.

GASTROSCOPY.

Description: Instruments, technique and visualization.

NO. 13

Dr. Carl H. Greene, New York Post-Graduate Medical School and Hospital, New York.

Types of Gallbladder Disease and of Associated Jaundice.

Description: Charts, models and drawings demonstrating distinct types of gallbladder disease, together with records of cases from the clinic. Models and drawings of conditions with associated jaundice with case records from the clinic. Moving pictures of normal and pathological physiology of the gallbladder.

NO. 14

Dr. David M. Bosworth, Polyclinic Hospital, New York.

LESIONS OF THE MENISCI OF THE KNEE. Description: (a) Gross specimens of menisci of the knee showing (1) lacerations (2) cysts. (b) Transparencies of x-rays. NO. 15

Dr. Frank H. Lahey, Lahey Clinic, Boston, Mass.

SURGERY OF THE LUNG, THYROID, RECTUM AND GALLBLADDER.

Description: Transilluminated, colored reproductions of the surgery of sub-total thyroidectomy for exophthalmic goitre. The Lahey abdomino-perineal resection of the rectum for cancer of the rectum. One stage total pneumonectomy for carcinoma of the lung. Cholectsyectomy and exploration of the common duct. Also various x-ray films, wax models and tumor specimens. Two motion picture films will be shown, one in color on the technique of sub-total thyroidectomy and one on the general subject of Endocrinology

NO. 16

Dr. Joseph C. Regan, Dr. Alexander Tolstoouhov, Brooklyn.

CHANGES IN ACID BASE EQUILIBRIUM IN WHOOPING COUGH; RELATON TO UNDERLYING PATHOGENESIS OF DISEASE; THERAPEUTIC SIGNIFICANCE.

Description: Charts, graphs, drawings and descriptive placards. The subject matter includes results of blood chemistry studies; description of characteristic changes, dimunition of inorganic phosphorus and increase in hydrogen ion concentration; significance of these changes, uncompensated acidosis; detailed exposition of this form of acidosis; causation, accumulation of free carbonic acid in the blood; relation to the paroxysms; therapeutic significance.

NO. 17

Dr. Maxwell Maltz, New York.

PLASTIC RECONSTRUCTIVE SURGERY.

Description: Correction of deformities of the face illustrated by photographs and masks of patients before and after reconstruction. Demonstration of new instruments and technique for rhinoplasty and tubal skin grafting.

NO. 18

Dr. Jesse G. M. Bullowa, Littauer Pneumonia Research Fund, New York.

MANAGEMENT OF THE PNEUMONIAS.

Description: The methods of typing; composition of endemic pneumonia results of serum therapy; oxygen therapy; treatment of special conditions.

NO. 19

Dr. David Sashin, Hospital for Joint Diseases, New York.

Low Back Pain. Relation of pathologic changes of the Sacro-iliac joints and lower lumbar and lumbo-sacral inter-

vertebral disks to pain and disability in the lower back.

Description: Numerous gross formaldehyde and macerated specimens, photomicrographs, charts, drawings, photographs showing normal and pathological changes of the sacroiliac joints and intervertebral disks. Case histories and x-ray prints and drawings of the method of treatment. Mounted macerated specimens showing effect of a narrowed intervertebral disk on the articular facets and on the normal lumbar curve.

NO. 20

Dr. David Reisner, Dr. Oscar Auerbach, Sea View and Metropolitan Hospitals, New York.

SILICOSIS AND SILICO TUBERCULOSIS.

Description: Roentgenograms and pathological specimens illustrating pulmonary lesions resulting from occupational dust exposure. Various forms and stages of silicosis are included, both with and without association with tuberculosis.

NO. 21

Dr. Samuel G. Schenck, Jewish Hospital, Brooklyn.

HODGKIN'S DISEASE WITH BONE MANI-FESTATIONS.

Description: Reductions of roentgenograms showing Hodgkin's invasion of the pelvis, spine, skull and femur. Photographs of gross specimens of Hodgkin's spine with low and high power photomicrographs.

NO. 22

Dr. Henry K. Taylor, Beth Israel Hospital, New York.

SUPPURATION IN THE PNEUMATIC PETROUS APEX.

Description: The exhibit consists of 48 10 x 12 illustrations. The roentgen appearance of the petrous pyramids with all types of otitic infection are shown. The major portion of the exhibit is devoted to suppurative lesions in the petrous apex.

Dr. Louis Nathanson, Sea View Hospital, New York.

LARYNGEAL TUBERCULOSIS.

Description: The exhibit consists of 112 8 x 10 films, showing tuberculous lesions in all the structures of the neck. The major portion of the exhibit is devoted to laryngeal tuberculosis. Depending upon the size of the lesion, it is designated as either, minimal, moderate or extensive. Lesions demonstrated: Tuberculosis in ventricle. Involvement in interarytenoid area, cords, aryepiglottic folds, epiglottis, subglottic extensions, prevertebral cold abscess, perichondritis, etc.

NO. 23

Dr. Conrad Berens, Dr. Brittain F. Payne, Lighthouse Eye Clinic, New York,

CERTAIN PHASES IN THE DEVELOPMENT OF THE HUMAN EMBRYO.

Description: A series of specimens of human embryos ranging from 6 mm. in length to term, demonstrating the formation of the primary optic vesicle and invagination of the surface ectoderm to form the crystallin lens and the development of the secondary optic vesicle. Further development of the human eye is demonstrated by various intermediate stages up to term.

NO. 24

New York City Cancer Committee, New York.

CANCER EDUCATION.

Description: A series of charts and photographs showing how cancer education may be carried on for both the lay public and the medical profession.

NO. 25

Dr. Irving Greenfield, Dr. Irving Gray, Jewish Hospital, Brooklyn

Acute Lead Poisoning. (Analysis of 50 Cases.)

Description: The diagnostic criteria, symptomatology, physical findings, chemical studies and other laboratory data. Laboratory data will include such special studies as renal function tests (urea clearance, phenolsulphonthalein and dilution and concentration tests), liver function tests (bromosulphonaphthalene, galactose tolerance and glucose tolerance), gastric analysis, blood chemistry, including calcium and phosphorus studies, urine, stool and blood studies for lead, etc. The results of studies on the cardiovascular system by electrocardiographic, blood pressure and oscillometric readings will be shown. Fluroscopic and x-ray findings in the gastrointestinal tract will be displayed.

NO. 26

Dr. J. Thompson Stevens, New York.
IRRADIATION IN THYROTOXICOSIS.

Description: Charts of collective and personal statistics of the results of irradiation in thyrotoxicosis. Charts setting forth the types of thyroid disease suitable for irradiation. Charts showing the craftiseries and exciting causes indications for i of patients before and after treatment with case histories, physical findings and follow up findings. NO. 28

Dr. A. Sumner Price, Dr. Malcolm

Campbell, Polyclinic Hospital, New York.

LESIONS OF THE MAMMARY GLAND.

Description: A series of about 40 transparencies mostly photomicrographs of histological sections, including benign, inflamatory and neoplastic lesions with emphasis on borderline lesions and criteria for early diagnosis.

NO. 29

Dr. R. Franklin Carter, New York Post-Graduate Medical School and Hospital, New York.

Appendicitis in Children.

Description: Exhibit is composed of paintings depicting the organs of the abdomen. Clay models of different types of appendicitis experienced in operating on 300 cases in children under 14 years of age, 115 cases of chronic appendicitis and 185 cases of acute appendicitis.

NO. 30

Dr. Moses Einhorn, New York.

NEW INSTRUMENTS AND NEW LABORA-TORY METHODS IN GASTRO-ENTEROLOGY.

Description: (a) Analytic bucket for complete quantitative and qualitative analysis of gastric content.

(b) Rapid filtering apparatus stopped auto-

matically and at will.

(c) Koproscope — special container for feces.

(d) Electric automatic serialograph.

(c) Minin method for complete quantitative and qualitative analysis of gastric content.
 (f) Douche and shower apparatus for clean-

ing gastrointestinal tubes.

(g) Special cabinet for storing gastrointestinal tubes.

(h) New procto-sigmoidoscopic instruments.

(i) New dilator apparatus for cardiospasm. NO. 31

Dr. Jerome M. Lynch, Polyclinic Hospital, New York.

BORDERLINE TUMORS OF THE RECTUM AND COLON.

Description: Illustrations of the author's operation employed in malignancy. Gross specimens, photographs, photomicrographs and charts. NO. 32

Dr. Alfred Plaut, Dr. Ella H. Fishberg, Beth Israel Hospital, New York.

OBLITERATING ARTERITIS OF SMALL LUNG ARTERIES.

Description: Photomicrographs showing the old and recent obliterating lesions in the

lung arteries and the accompanying tissue reactions. Gross specimen of lung with obliterated vessels. Charts and graphs explaining the change in blood gases.

NO. 33

Dr. A. J. Hambrook, Troy.

CONSERVATION OF HEARING. SUB-COMMITTEE ON THE DEAF AND HARD OF HEARING. COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION AND THE COMMITTEE ON PUBLIC RELATIONS.

Description: Charts, panels, photographs and audiometers.

NO. 35

Dr. William Bierman, New York.

SKIN SURFACE TEMPERATURES IN THE DIAGNOSIS AND TREATMENT OF PERIPHERAL VASCULAR DISEASE.

Description: The diagnostic significance of the temperature of the surface of the big toe when heat and cold are applied locally and elsewhere on the body. The therapeutic significance of toe temperature in evaluating the influence of fever, anesthetics, acetylsalicylic acid, alcohol, coffee and tobacco.

NO. 36

Dr. M. Bernard Brahdy, Willard Parker Hospital, New York.

METHOD FOR THE IDENTIFICATION OF DIPHTHERIA BACILLI.

Description: Rapid method (4 hour) for the identification of diphtheria bacilli, which the practicing physician can perform himself. Photomicrographs of stained smears from 4 hour (rapid method) cultures taken from diphtheric membrane. Charts to show comparative results of the rapid method and Loeffler method in diphtheria cases and controls. Application of the rapid method to the detection of virulent carriers, photomicrographs and charts.

NO. 38

Dr. Murray B. Gordon, Long Island College of Medicine, Brooklyn.

ENDOCRINE DISORDERS IN CHILDREN.

Description: A consideration of the newer methods of endocrine diagnosis based upon physical, chemical and roentgenographic interpretation. Differential diagnosis, disturbances of development, growth, mentality, sex and nutrition with the results of treatment will be illustrated by photographs, charts and films.

NO. 39

Dr. Joseph Safian, New York.

RECONSTRUCTIVE SURGERY OF THE FACE. Description: Casts, photographs and diagrams of operative procedures in nose, ear and chin reconstruction.

NO. 40

American Medical Association, Chicago, Ill.

AN EXHIBIT ON PHYSICAL THERAPY.

Description: Charts, pamphlets and motion pictures giving information on short wave diathermy, positive and negative pressure therapy and information on home made apparatus.

NO. 41

Dr. George W. Kosmak, Maternity Center Association, New York.

TEACHING THE PUBLIC ABOUT MATERNITY CARE.

Description: Posters, text and literature depicting adequate maternity care.

NO. 42

Dr. Jacob Sarnoff, Israel Zion Hospital, Brooklyn.

SYSTEM OF GENERAL SURGERY IN MOTION PICTURES.

Description: A continuous performance without repetition, of motion pictures depicting the clinical findings, surgical technique, gross, microscopic and pathological findings, clinical course and end results of a variety of rare and interesting surgical conditions presented in natural colors, including plastic surgery; with life size models of end results.

NO. 43

John Oppie McCall, D.D.S., The Murry and Leonie Guggenheim Dental Clinic, New York.

DENTAL DISEASES IN NEW YORK CITY CHILDREN.

Description: Photographs of clinic patients showing various types of dental caries, irregularities, etc. Photomicrographs of extracted teeth showing various types of carious lesions. Enlarged intra-oral x-ray photographs showing results of early dental neglect, anomalies, evidences of retarded and accelerated alveolar growth, etc.

NO. 44

Dr. Joseph L. Moreno, New York Training School for Girls, Hudson.

PLANS FOR RE-SETTLEMENT OR RE-GROUPING POPULATION ON A SOCIOMETRIC BASIS.

Description: Graphs demonstrating the scientific method of sociometric procedure applied to the problems of re-settlement and re-grouping. NO. 45

Dr. Louis F. Bishop, Jr., New York.

DRAWINGS OF INTERESTING CASES SHOW-ING CARDIOVASCULAR PATHOLOGY.

Description: Drawings of pathological speci-

mens with brief description of outstanding pathological findings under each drawing.

NO. 46

Dr. William S. Collens, Dr. Nathan D. Wilensky, Israel Zion Hospital, Brooklyn.

PERIPHERAL VASCULAR DISEASE.

Description: A demonstration of the results of the use of intermittent venous compression on peripheral vascular obstruction. This method is based on the principle of reactive hyperemia.

NO. 47

Public Health Committee of the Medical Society of the State of New York and The Metropolitan Life Insurance Co.

Description: Pneumonia. Charts on statistical and clinical aspects of pneumonia including incidence, diagnosis, serum therapy, etc. NO. 48

Dr. Samuel Weiss, Polyclinic Hospital, New York.

X-RAY STUDIES OF NORMAL AND ABNORMAL CONDITIONS OF THE GASTROINTESTINAL TRACT.

Description: Reductions of x-ray films, photomicrographs and infra red photographs, to be exhibited on a specially constructed view box to be provided by exhibitor.

NO. 49

Dr. Jacques Maliniak, New York.

PLASTIC SURGERY.

Description: Photographs, charts, casts and motion pictures illustrating the variety of congenital and acquired deformities of face and form with special emphasis on repair of extensive post-traumatic and pathological defects about the facial cavities, also repair of conspicuous deformities of the breast.

NO. 50

Dr. Charles W. Schwartz, Dr. Cornelius G. Dyke, Neurological Institute, New York.

ROENTGENOGRAPHIC EVIDENCES OF CRANIAL AND INTRACRANIAL DISEASE.

Description: Forty roentgenograms of the skull, twenty illustrating cases readily recognized, the remainder consisting of encephalograms showing various intracranial conditions which can be diagnosed by the injection of air into the cerebrospinal fluid pathways.

NO. 51

Dr. Keith Kahn, Gouverneur Hospital, New York.

PLASTIC SURGERY.

Description: The most common surgical

procedures employed in plastic reconstruction and normalization and the results that may be expected following such operations. The surgical technique is evidenced in natural color movies, which forcefully record step by step each operation as performed upon the most commonly malformed or injured parts of the body. The results are demonstrated by the more recent photographic transparencies which are supplemented by casts and models.

NO. 53

Dr. William G. Exton, New York.

DIAGNOSIS OF DIABETES.

Description: Charts illustrating one hour, two dose, tolerance test, Clinical identification and measurement of urinary sugars and statistics concerning one thousand urines showing reducing substances.

NO. 55

Dr. Burton T. Simpson, Division of Cancer Control, State Department of Health, State Institute for Study of Malignant Disease, Buffalo,

CANCER.

Description: Transparencies portraying cancer in different parts of the body before and after treatment. Types of treatment. Photomicrographs and end results. Also wax models showing, in realistic manner, cancer in various parts of the body.

NO. 56

Dr. Mortimer N. Hyams, Department of Gynecology, New York Post-Graduate Medical School and Hospital, New York.

STERILIZATION OF THE FEMALE.

Description: A new method of transuterine occlusion of the uterine cornu under direct vision with a special high frequency current. An exhibit of instruments and equipment used; the progress of the work from its inception to the present date, illustrated by utero-salpingograms in special illuminating boxes, models, pathological specimens, gross and microscopic studies of uteri showing the progressive changes following treatment by this technique; hysterosalpingograms of patients treated before and after sterilization.

Dr. I. C. Rubin, Mt. Sinai Hospital, New York.

UTERO-TUBAL INSUFFLATION, A CLINICAL DIAGNOSTIC METHOD FOR TESTING TUBAL PATENCY.

Description: A motion picture including animated drawings.

Technical Exhibits

No physician should miss the rare opportunity to examine personally the important products offered for inspection in the six rooms of technical exhibits.

Over one hundred and twenty-five firms will have exhibits at this year's meeting—breaking all previous records. These firms are spending thousands of dollars to present their products for your inspection, and it will prove well worth

while to set aside an hour or two to see them.

For the benefit of members whose office hours do not permit their spending any time during the day, also for the busy delegate, the exhibit rooms will be open until 10:00 P.M., on Tuesday evening.

A glance at the names listed below is enough to show the importance of this year's exhibits:

Morris & Co. Ltd., IncNew York	White Laboratories, IncNewark, N. J.
CompanyNew York	Merck & CoRahway, N. J.
. Hackel CoNew York	Nestle's Milk Products IncNew York
agar LaboratoriesChicago, Ill.	Hynson, Westcott & DunningBaltimore, Md.
ational Latex CorpRochester, N. Y.	Kellogg CompanyBattle Creek, Mich.
s, Rose & CoBoston, Mass.	Arlington Chemical CoYonkers
s C. ThomasSpringfield, Ill.	Bard-Parker CoDanbury, Conn.
Allyn CoAuburn, N. Y.	Murray Breese AssociatesNew York
ewest Instrument CoChicago, Ill.	American Agency of French VichyNew York
oregger Co. IncNew York	Prometheus Electric CorpNew York
m Emanation CorpNew York	Warren E. Collins, IncBoston, Mass.
roy Co. IncNew York	The Medical BureauChicago, Ill.
McNeill & LibbyChicago, Ill.	Kelley-Koett Mfg, CoNew York
nohale, IncNew York	New York Medical ExchangeNew York
facMillan CoNew York	Keystone View CompanyMeadville, Pa.
n Surgical Inst. CorpRochester, N. Y.	Philips Metalix CorpNew York
can Hospital Supply CorpChicago, Ill.	Saratoga Springs AuthoritySaratoga Springs
ot Castle CoRochester, N. Y.	High Tension CorpNew York
Lippincott CoPhiladelphia, Pa.	Cambridge Instrument CoNew York
ly Bros. & CoIndianapolis, Ind.	De Vilbiss CompanyToledo, Ohio
en CoNewark, N. J.	Form Publishing CoNew York
, Kline & French Labs. Philadelphia, Pa.	Riedel-de Haen, IncNew York
ly Bros. & CoIndianapolis, Ind. en CoNewark, N. J.	De Vilbiss CompanyToledo Form Publishing CoNew

Muller LaboratoriesBaltimore, Md.	The Liebel-Flarsheim CoCincinnati, Ohio
Schering CorpBloomfield, N. J.	American Cystoscope Makers, IncNew York
Vitex Laboratories	T. H. McKenna, IncNew York
Duke LaboratoriesLong Island City	Maltine CompanyNew York
Burroughs Wellcome & CoNew York	R. J. Strasenburgh CoRochester, N. Y.
C. V. Mosby CompanySt. Louis, Mo.	Guild of Prescription Opticians of Greater N. Y.
Bilhuber-Knoll CorpJersey City, N. J.	J. H. EmersonCambridge, Mass.
Gerber Products CoFremont, Mich.	National Discount & Audit CoNew York
Adlanco X-Ray CorpNew York	Benjamin Junior Shoe ShopsNew York
Barr LaboratoriesNew York	Crookes LaboratoriesNew York
R. B. Davis & CoHoboken, N. J.	W. B. Saunders CoPhiladelphia, Pa.
H. G. Fischer & Co. IncChicago, Ill.	Nichols Nasal Syphon, IncNew York
Lederle Laboratories, IncNew York	Pediforme Shoe CoNew York
Cameron Surgical Specialty CoChicago, Ill.	General Electric CorpChicago, Ill.
Adhesol CoBuffalo	Pfau's American Instrument CoNew York
Sandoz Chemical WorksNew York	Intourist, IncNew York
Sanborn CompanyBoston, Mass.	Vegex, IncNew York
Lea & FebigerPhiladelphia, Pa.	Lepel High Frequency LabsNew York
E. R. Squibb & SonsNew York	The Sun-Rayed CoFrankfort, Ind.
Kalak Water Co. of N. YNew York	New York State Pharmaceutical Assn.
H. E. Dubin Labs. IncNew York	New York
Mead Johnson & CoEvansville, Ind.	National Electric X-Ray CoNew York
Winthrop Chemical CoNew York	American Safety Razor CorpBrooklyn
E. B. Meyrowitz Surg, Inst. Co. Inc.	S. M. A. CorporationCleveland, Ohio
New York	George Tiemann & CoNew York Holland-Rantos CoNew York
Radon CompanyNew York	McIntosh Electrical CorpChicago, Ill.
Wisconsin Alumni Research Found.	H. J. Heinz CoPittsburgh, Pa
Madison, Wisc.	Electro Therapy Products Corp New York
Harold Surgical CoNew York	Picker X-Ray CorpNew York
Coward Shoe CoNew York	Medelectro Products CorpNew York
Wallace & TiernanBelleville, N. J.	
C. M. Sorenson CoLong Island City	Melrose Hospital Uniform CoNew York Becton, Dickinson & CoRutherford, N. J.

Public Health News

IS BOVINE MASTITIS A PUBLIC HEALTH PROBLEM?

PAUL B. BROOKS, M.D., Albany

Deputy Commissioner, New York State Department of Health

Veterinarians find that anywhere from three to ten per cent, more or less, of cows in the average milk-producing herd are suffering from mastitis: conditions varying all the way from limited, old indurations, suggestive of latent infections, up to acute and chronic cases with obvious discharge of pus. The vast majority of cases are incited by a "bovine type" of streptococcus, not known to be pathogenic for man. On the other hand, nearly every year, in "up-state" New York, we have from one to four or five serious milkborne outbreaks of sickness, usually infections incited by hemolytic streptococci but occasionally poisoning by a staphylococcus toxin, traceable to cows with mastitis.

Under these conditions it is not surprising that the question often arises whether, or to what extent, bovine mastitis is a public health problem. A great deal of confusion, as to the answer, exists in the minds of dairymen and even of many milk control officers. Answers to questions in state licensing examinations in hygiene indicate that few recent graduates in medicine have any clear idea as to the answer. This latter is not remarkable, since it probably will not be found in any medical textbook. Having recently attempted to formulate an answer to the question in discussion at a meeting of food control officials, I am presenting my answer here in the hope that it will be of interest to physicians.

Udder damage resulting from mastitis reduces the milk-producing capacity of the cow. Infections often spread from one cow to others in a herd. Dairymen who have succeeded in "cleaning up" their herds, report increased milk production. Milk from "clean" herds is likely to bring a better price. There is no question, therefore, but that this is an economic problem.

Considering the great prevalence of mastitis and the difficulty of controlling it, it is obvious that, at one time or another, nearly every milk consumer has used milk

from cows with mastitis. There is little, if any, concrete and convincing evidence that serious harm has resulted, even with unpasteurized milk, from infections with the bovine type of organism. On the other hand there is no proof that isolated cases of illness, never traced to their source, are not due to such milk.

The practical question, of course, is whether eradication of mastitis should be pushed as a health measure. Certainly, on the evidence thus far presented, it would not be warranted.

The cases of mastitis known to be dangerous to human health are those in which the infecting organisms are transmitted to the cows' udders from infected persons. Commonly it is one who has had a sore throat but several outbreaks have been traced to milkers with suppurating wounds. Such cases, as compared with the ordinary "bovine type" of infection, are relatively rare: surely not one in a hundred. As a rule they develop quickly, following teat or udder injuries. The general eradication of mastitis, if this is feasible, would not prevent them. The more intelligent and conscientious dairyman will exclude the milk from any cow with mastitis as soon as the condition is discovered, but in this class of cases milkborne infection could occur before the condition was recognized. Pasteurization, therefore, is the only dependable safeguard.

My answer to the title question, then, is that bovine mastitis, in general, is primarily an economic problem for the dairyman and only incidentally a public health problem. The general eradication of the disease would result in elimination of many unprofitable cows, would improve the quality of our milk supply and, whether or not it would be safer or more healthful, would make it more desirable, from the esthetic standpoint, for human consumption. But on present evidence there is not sufficient warrant for demanding it as a measure for the protection of public health.

The Second International Congress of the Scientific and Social Campaign Against Cancer will be held in Brussels from September 20 to 26, 1936. For particulars, apply to the General-Secretariat of the Congress, 13, rue de la Presse, Brussels. Among American surgeons participating are Drs. Dublin, Ewing, Lynch and Wood.

Economics

Reprint from Medical Economics February 1936, by special permission.

What does your friend, the patient, think about state medicine? If he's typical of a large segment of the public who have heard and read only one-sided comments about it, he will probably tell you that "it sounds like a great idea . . . something this country needs." Yet what happens when an intelligent layman really studies the subject and interprets what he learns sensibly and dispassionately? The accompanying article not only answers this question but serves also as a vivid revelation to physicians. Mr. Walch, general manager of the Debaters Information Bureau, Portland, Maine, and compiler of the "Handbook on State Medicine," has no doubt probed the question as exhaustively as any layman in the country. His remarks, being those of an impartial onlooker with no axe to grind, carry double weight in consequence.

I Don't Want to be a Statistic!

By J. Weston Walch

For over a year now I have been wallowing in a sea of medical-economic books, articles, and pamphlets—to say nothing of the limitless reports of the Committee on the Costs of Medical Care. I have wallowed until numbers and percentages fairly dance before me in my sleep. I have almost been convinced that I am merely a statistic myself—an insignificant statistic—a one-hundred-and-twenty-millionth part of that series of reports.

But I don't want to be a statistic! Statistics have no feelings! Statistics will do for stock market reports, and sacks of sugar, and burned out motor bearings in my car. But I rebel at becoming an impersonal number.

When I have a stomach ache it is my ache. It hurts me. When a cavity is found in one of my teeth, I am not interested in the fact that 79% of the American people should go to a dentist. I have got to go to a dentist. He is going to work on me.

When I am very sick, I am very unreasonable. I don't like to be sick. I don't want to die; perhaps I am afraid of Hell fire! And I have heard of so many people dying from such little things! I want the best doctor regardless of whether my ailment is a little one or a big one. That is the one time that I insist on efficient service.

And so, as I read about state medicine, a library full of statistics does not impress me so much as the answer to one simple question: Would state medicine give ME efficient medical service?

- I should like to discuss this under four sub-questions:
- 1. Would state medicine provide me with the best of doctors?

2. Would those doctors have modern equipment?

3. Would they be interested in me and my welfare?
4. Would they treat me quickly and efficiently?

Would state medicine provide me with the best of doctors? Naturally, under state medicine all doctors would be members of a state system. They would become members by appointment. I wonder whether the state would be as interested in having a competent doctor attend to my stomachache as I would?

Let us suppose that the state medicine system for my state needs an additional young surgeon for the hospital in my town, Three candidates apply. Doctor A led his class in medical school. Doctor B is a nephew to the local state senator, Doctor C's father is willing to pay the local political boss a thousand dollars for his son's appointment. Now, of course, the head of the medical system would prefer Doctor A, but he knows he needs support in the state senate for the new hospital in Jonesport. Besides, the governor who appointed him has political obligations to repay to that local political boss. While I would hope that Doctor A would land the position, I rather suspect the appointment would go to Doctor B or Doctor C!

I have seen too many politicians spending too much money to get into public office to believe that many of them are honest. I wouldn't accept the advice of one of them in betting on a horse race or a prize fight, let alone in picking a doctor to operate on ME! While I would be glad to be allowed to choose the services of any state doctor I liked, I certainly would

not accept even the free services of any random state physician for anything more serious than a cold or a sore toe!

Would those state doctors have modern equipment? I am not interested in the promises of sociologists. I am interested only in what kind of equipment the state has provided for the functions it has undertaken. I have so often heard the free school system compared with our medical system that I immediately think of our present school equipment in connection with state medicine. The economics classes in the biggest high school in my own city are studying from a textbook which teaches that the Federal Reserve System put an end to all depressions! You can imagine when that book was written! I wouldn't want a doctor with equipment that antique. And I'm afraid that's what my state would give me!

The same politicians who would be able to force an inferior surgeon into the hospital system in my community would also control the funds which would go to operate the system. I fear that the order for ether, or bandages, or vaccine, would not be approved until the right politicians had received their little rebates. Naturally, the companies making these products would not be able to put the proper value into them when part of the price had to go into outside pockets.

I would not want to be etherized or vaccinated with an inferior product while a foundation collected statistics on the increasing death rate from poor ether, or the increasing death rate due to poor vaccine! Once again, I say, I do not want to become a statistic!

Would these doctors be interested in ME and my welfare? It is a bit difficult for an efficiency expert to see why I want my doctor to be interested in MY troubles and not be satisfied to have him make a mere scientific attack on the malady with which I am afflicted. This is difficult for any one to appreciate when he is well and the problems of sickness seem remote.

I must ask you to try to imagine how state medicine would work out when you are seriously ill—when the things of time and sense in your every day world recede and leave you isolated to face the forces of disease. Doesn't the question of the efficiency of the doctor assigned to you become an overwhelming obsession? Fears and irrationalities that you would dismiss at once in full health crowd upon you and refuse to be chased way. "Is my doctor interested in my case? Then why doesn't he come!" Of course your friends have been told that you are making prog-

ress! But in what direction? The mere worry over your condition drives up your fever and your blood pressure!

You are patient number 196 in ward 112. You were sent there by doctor D-19 and examined by intern number I-42 preliminary to operation by surgeon S-76. The surgeon does not have to come to see you. He can learn all about you—your past medical history and present complication—by consulting his card index. You are merely a part of his day's work. Besides, he has other patients a lot sicker than you are. As you lay there you wonder how many of those patients got that way through neglect under the "free" state system. And that helps neither your peace of mind nor your recovery.

The efficiency experts may be satisfied with the marvelous statistics that the state medical systems will keep, covering the records of each patient. But as for me, I don't want to be classified. I want to be cured!

Would these doctors treat me quickly and efficiently? I have already partly answered that question. But there are other considerations which will weaken the efficiency of a state system of doctors. We all have friends, lots of them, who imagine they have every disease they hear of. Even under the private medical system, they haunt the offices of their doctors. The only thing which keeps them even now from becoming an overwhelming nuisance is that under the private medical system they are supposed to pay their doctors for services rendered. If the taxpayers were carrying all the costs, I fear that every state medical center would be jammed by people demanding treatment for imaginary ills. When I appeared at the state medical station, the state doctor to whom I had been assigned would just naturally regard me with suspicion. He would first want to discover whether I was really sick or merely faking. Now when I am sick, I do not want to be regarded as a fake or a hypocrite. I want to be treated right off, and cured.

The mere fact that the service was free and state-supported would build up an attitude towards physicians and on the part of physicians that would make honest and efficient treatment difficult. Where the patient formerly sought and respected the physician's advice, he would demand service from his state-supplied medical servant. There is a subtle difference between the two attitudes which cannot be expressed in money values, nor discovered in the statistics compiled by the Committee on the Costs of Medical Care and other groups.

Under a state system, if a doctor told a patient that he didn't need any pills and treatments, he would be suspected of loafing on the job. If he prescribed treatment distasteful to the patient, or if the patient regarded it as inadequate, he would run the chance of being reported to the management, like an impudent hotel bellhop! I don't think this attitude would foster vigorous and scientific medical practice!

I want my doctor to be independent, honest, and individualistic. I do not want his medical advice to be as inane as the political views of the average public barber!

And so I will not be able wholeheartedly and enthusiastically to patronize a free state medical system if one is established. And I doubt if any fees I could pay would secure me the services of any of the few remaining private physicians. The public schools have made private schools into institutions for the wealthy only. Private doctors, too, would be scarce; and with most of the people getting free service, the private physicians would have to depend on the wealthy for their support. Fees would

rise accordingly. I would have no excuse to ask them to lower them for me; would not the free state medical system be available to me?

So many institutions are being socialized today that I believe the private medical system is in danger. There is very little I can do about it. I am only one person in a hundred and twenty million. My lone vote against it is not worth much.

As I read the medical magazines I discover that most of the medical organizations are opposed to state medicine. I also discover that in their own meetings doctors condemn in no uncertain terms the approach of socialization. I wish that the medical organizations, and the doctors in general, could realize that it is their duty, to themselves and to the public, to show the public just why and just how completely state medicine will be harmful to the interests of us all! Then and only then will we have any possibility of escaping from the ills of a completely socialized medical system.

Medical News

Bronx County

Mrs. Julius Ferber spoke before the Bronx County Medical Society on March 18 on the Physicians' Wives League. Dr. Richard Kovacs discussed Physiotherapy in relation to traumatic surgery, and Dr. William Bierman read a paper on Fever Therapy, with discussion by Drs. Herman Bick and Thomas M. Brennan.

Broome County

THE MARCH MEETING of the Broome County Medical Society was largely devoted to a discussion of legislative and economic problems facing the profession.

Cattaraugus County

THE MARCH MEETING of the Cattaraugus County Medical Society included in its program an address by Dr. James K. Quigley, of Rochester, on maternal welfare, a case report by Dr. R. F. Garvey, of Olean, and a report on maternal welfare by Dr. W. M. Smith.

Cayuga County

IT IS ESTIMATED that Dr. James W. Skinner, who died at his home in Genoa Village in February at the age of eighty-

three, brought more than 3,000 babies into the world during the fifty-seven years of his practice. He is said to have officiated at the birth of seven pairs of twins and three sets of triplets.

Chenango County

In ITS TRIBUTE TO Dr. A. Raymond Morse, of Oxford, who died suddenly of a heart attack in February, the Norwich Sun says that he "was one of Chenango county's best known physicians. No day was too stormy nor were the highways too rought for Dr. Morse to travel. He administered to patients many times when perhaps he was more ill than they. He enjoyed a large and lucrative practice and his death is largely due to overwork. He was a skillful doctor and to his patients he was not only their physician but a friend."

Columbia County

THE COLUMBIA AND GREENE County Medical Societies had a series of six postgraduate lectures, ending in March, on general medicine. The concluding lecture was given by Dr. K. R. McAlpin, of the Presbyterian Hospital, New York City, on "Pernicious Anemia."

Erie County

THE ANNUAL DINNER of the Buffalo Academy of Medicine and the Medical Society of the County of Erie will be held at the Hotel Statler, in Buffalo, on April 2. It will be the first annual combined dinner of the medical profession of Western New York.

Spurred by the fact that none of the relief projects have made any provision for medical service in the city of Buffalo, the Medical Society of the County of Erie unanimously adopted a set of resolutions on March 2 authorizing a committee "to negotiate with the State TERA, the Buffalo ERB, and the City Council, for the purpose of setting up a twelve-month medical project with the Buffalo City Hospital as sponsor, having for its objectives the hospital dispensary, and home care of all indigent residents in the city of Buffalo, said project to include the employment of at least 500 doctors per annum, for a period not to exceed thirteen weeks each, at a stipend of \$24 weekly, computed at the rate of \$2 per hour for six days of two hours each, or equivalent. Total, \$156,000, sixty per cent of this amount or \$93,600, to be appropriated by the Council of the City of Buffalo, and forty per cent, or \$62,400, to be granted the City from state funds."

"No applicant for clinic or home service is to be accepted who can afford the services of a private practitioner," and "all applicants who, after investigation, are manifestly able, must employ their own doctors." Every effort will be made to reestablish former doctor-patient relationships, and to maintain such relationships once established. Under this plan the doctors are to rotate in one-month periods in service in wards, out-patient departments, and homecall service. The plan is not intended in any way as a "state-medicine" project, but "conforms in every respect with the suggestions of the Minority Report on the Cost of Medical Care."

Fulton County

Dr. J. E. Grant of Northville, has been reelected President of the Fulton County Tuberculosis and Public Health Society.

Jefferson County

Dr. Isadore L. Green, of Watertown, said to be the oldest practicing physician in the state, celebrated her ninetieth birthday on Feb. 7.

Dr. Frederick Wetherell addressed the Medical Society of Jefferson County at its March meeting on the Gradient Plan, and Dr. W. S. Atkinson read a paper on the operative treatment of cataract.

Kings County

DR. BELA SCHICK, of Manhattan, will speak at the MacNaughton Auditorium at 4:30 on April 3 on "Childhood Tuberculosis."

Dr. E. R. Marzullo addressed the Medical Society of the County of Kings at its meeting on March 17, on "Lead Poisoning" and F. B. Flinn, Ph.D., spoke on "Industrial Arsenical poisoning."

Cancer treatment "has been held back for years by surgery and radiology competing," Dr. W. Edward Chamberlain, professor of radiology at Temple University, Philadelphia, told the Kings County Medical

Society on Feb. 18.

Speaking on "Radiation Therapy in Cancer," Dr. Chamberlain said, "There is no reason for the rivalry of surgery and radiology. They must co-operate, not compete."

Dr. William P. Healy, consulting gynecologist to numerous metropolitan hospitals, spoke on "Deep X-Ray Therapy in Pelvic Neoplasms." He declared that "public pessimism about the value of radiation in cancer treatment" was not justified. He cited cases where radiology had achieved favorable results that, he said, were at first thought impossible.

A portrait of the late Dr. Jacob Fuhs was presented to the society by Dr. Russell S. Fowler on behalf of the Central Medical Council of Brooklyn. It was unveiled by Dr. Milton G. Wasch and accepted for the society by Dr. Edwin P. Maynard, jr.

Dr. Henry Joachim, president, was chair-

man.

Dr. Henry Lerner, president of the board of directors and chief of the medical staff of the Crown Heights Hospital, Brooklyn, died on Mar. 6 of heart disease in his home at 1019 Bushwick Avenue, Brooklyn. He was 49.

Dr. Burton L. Zohman has been elected Fellow of the American College of Physicians.

Nassau County

THE WOMEN'S AUXILIARY of the Medical Society of Nassau County plan to launch a publicity campaign to oppose state medicine.

Answering reports that physicians have been overcharging the County Relief Bureau for services to indigent families, the Nassau Medical Society has issued a statement that the county's 400 or more doctors, each year, devote at least 40 per cent of their professional time to unpaid service.

"While people are about it, trying to discover a few isolated cases where doctors have charged for one or two more calls on relief families than have been made," said J Louis Neff, executive secretary, "let them look at the other side of the picture. We find among the members of the Medical Society, that doctors are paid by only 60 per cent of their patients."

'No doctor has been paid anything for work done at either the Meadowbrook Hos pital, or at Nassau Hospital, and of course,

they do not expect it"

Mr Neff cited one Hempsterd doctor as an example of physicians' unpid time. The doctor he mentioned in 1935 performed 62 major operations in Nassiu and Mendow brook Hospitals Each operation at the minimum fee, was worth an average of \$150 making a total of \$9,300, and performed without compensation to the physician, he claimed

New York County

THE CITY FACES a crisis in its fight against tuberculosis because of a shortage of 2,500 hospital beds, Frank Kiernan, director of the New York Tuberculosis and Health Association, announces

APPROXIMATELY 4,700 doctors are now making calls in the five boroughs for the ERB In one day recently 1,654 families were sent physicians 72 were sent nurses, and 341 were authorized medication

DR WM SEAMAN BAINERIDGE has been decorated by Spain and Yugoslavia for his work in the late war—Cross of the Order of Naval Merit of Spain, and Communder Order of the Crown of Yugoslavia In recognition of his scholastic and scientific attriuments he has been made Honority Member of the Union Medicale Latine, composed of thirty one nations with head-quarters in Paris

DR ARTHUR M FISHBERG addressed the Interne Council of Greater New York on Feb 20 at the Squibb Auditorium, on 'Extrarenal Azotemin' 'At the same meeting it was announced that a bill sponsored by the Interne Council of Greater New York amending the Workmen's Compensation Law to include internes in municipal hospitals has been introduced into the Assembly at Albany Progress was reported in the campaign for salaries for interns at private hospitals

Ontario County

THE CANANDAIGUA MEDICAL Society is having an interesting series of programs which began on March 12 with Dr M R Blakeslee of Shortsville, as host Dr D A Liscline, of that village, spoke on

'Lndoscopy' The next meeting will be on April 9, with Dr W B Clapper, of Victor is host, and Dr M E Missal, of Rochester, as speaker subject, "Chest Pains"

PLIADING GUILTY TO false representation and swearing to false claims for medical care of welfare relief recipients, when arraigned before County Judge Horace W Litch in Canandaigua on February 18 Dr J Kenneth Cole, thirty-nine, of Phelps, was fined \$500 The case is believed to have been the first of its kind in New York State

Rensselaer County

THE PROGRAM or the Medical Society of the County of Rensselaer for its meeting on March 10 included addresses on "The Physician as the Hospital Sees Him," by Miss Grace Allison, superi tendent of the Samantian Hospital "X-ray Consideration of Joint Injuries," by Dr Walter McShane, and "Pregnancy Anemias," by Dr Charles R Lewis

Rockland County

A SPECIAL JOINT meeting and dinner of the Medical Society of the County of Rock lind and the dentists of Rockland County was held at the Hotel St George, Nyack on February 27, with an attendance of sixty three (45 physicians and 18 dentists). The speaker was George H Semken, M D, F A C S of New York City, whose subject was, "A Consideration of Some Diseases of the Mouth and Jaws" Dr Semken's subject was illustrated by lantern sides emphasizing the importance of radical surgery where carcinoma was present about the face and head Discussion was opened by M J Lentz, D D S of Passaic N J

Schenectady County

HLALTH COMMISSIONER Joseph B Garlick, the man who brought pasteurized milk into Schenectady for the first time 20 years ago, one of the city's leading physicians and a past president of the Schenectady County Medical Society, died on February 17 of a heart ailment in the Umatilla hospital at Umatilla, Fla He was 54 years old Death came in the midst of Dr Garlick's annual vacation in Florida where he had gone February 1, expecting to remain two months Dr Garlick, who was unaware he possessed a heart ailment was seized with what he at first believed was a stomach attack while playing golf at Mt Plymouth, Fla, with County Attorney Walter Scott McNab and Evan Cul lings of Schenectady

Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

Diet Control. By George E. Anderson, M.D. & Paul C. Eschweiler, M.D. Octavo. New York, Press of Fremont Payne, Inc., 1935. Cloth, \$3.50.

This gem of 41 pages and appended diet lists is based upon the best of our modern knowledge of diabetes and the authors' years of experience in the clinics of the Brooklyn, Methodist-Episcopal, and Lutheran Hospitals. Its object is to give to the general practitioner clear and accurate methods in the dietetic treatment of diabetes and other conditions in a form, readily comprehended and time saving. The "Diet Prescription Graph," built on a basic diet of 1085 calories, with carbohydrate, 100 grams, calories, with carbohydrate, 100 grams, protein 70 grams, fat 45 grams is ingenious and so constructed as to permit of quick calculation of any desired combination of calories. Nothing, so much of a multum in parvo, has appeared in recent years, in a form so practically available for the busy physician and possible for trained nurses and even intelligent lay people. What the authors have so ably accomplished will prove a boon to many who have felt the need of just such a book. J. M. VAN COTT

Obstetrical Practice. By Alfred C. Beck, M.D. Quarto of 702 pages, illustrated. Bal-timore, Williams & Wilkins Company, 1935. timore, Wil Cloth, \$7.00.

This excellent work is all that one would expect from a former student of Reuben Peterson, J. W. Williams and John Osborn Polak.

The reviewer has yet to read a work on obstetrics which covers the ground more thoroughly and with so few words.

The many illustrations, most of which are by the author, are splendid, especially those on the mechanism of labor (pages 252-371).

Doctor Beck's book shows how well he realizes that the eye picture is much more instructive than the word picture. The eye and word pictures of placenta previa and accidental hemorrhage are unusually well

The chapter on "Medical and Surgical Complications of Pregnancy" is very complete and yet nor too voluminous. In chapter 30, "Faulty Passages" is a very good summary of the recent work of Caldwell and Moloy on their stereoscopic x-ray studies of the pelvis in relation to obstetrics.

In the chapter on "Rupture of Uterus," the author aptly says "the frequency of its occurrence in any community varies with the quality of obstetric practice in that location."

A few additions which the reviewer would like to see in subsequent printings are (1) illustrations of the steps in the application of Piper forceps for the after-coming head (2) more space and addition of illustrations regarding the use of the Barton and Kielland forceps, which are so successfully used by many obstetricians (3) some discussion and illustrations of the Latzko Cesarean which has a definite place of usefulness in a small group of cases (4) mention of the Brodhead intrauterine packer in the treatment of post-partum hemorrhage (5) discussion and illustrations of the modern methods of resuscitation of the new-born.

"Obstetrical Practice" is a real, practical, worthwhile piece of work.

If obstetrics were practiced as per this volume, there would be an appreciable reduction in Maternal Mortality.

From the reviewer's acquaintance with Skene, Jewett and Polak, Professor Beck's predecessors at the Long Island College of Medicine, he is sure they would join him in saying: "WELL DONE."

Frederick Clark Holden.

The Surgery of the Sympathetic Nervous System. By George E. Gask and J. Paterson Ross. Quarto of 165 pages, illustrated. Baltimore, William Wood & Co., 1934. Cloth, \$4.00.

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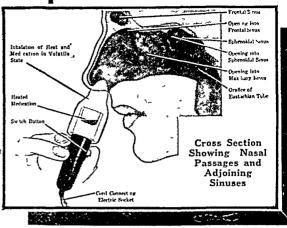
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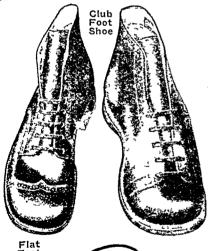
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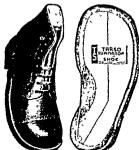
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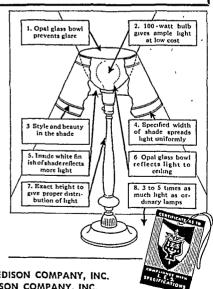
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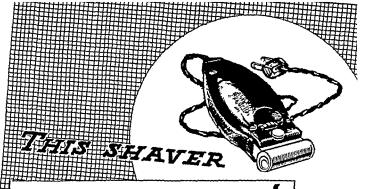
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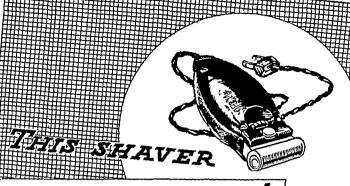
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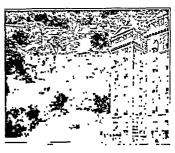
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Information About Your Convention City — What to See and How to Go About it

The following helpful information furnished by the Waldorf-Astoria will be found of excellent value if you are planning to make a real outing of your convention trip to New York City.

Places to see are-

Riverside Drive-Take No. 5 bus on Fifth Ave. Fare 10c.

Fifth Avenue-Take No. 2 bus on Fifth Ave. Fare 10c.

Financial District—Lexington Avenue subway to Wall Street.



Battery. Roundtrip tickets cost 35c and trip takes about an hour.

Cathedral of St. John the Divine
—111th Street and Morningside
Drive, Fifth Ave. bus.

St. Patrick's Cathedral — Fifth Avenue and 50th Street. Two blocks from Convention Headnuarters.

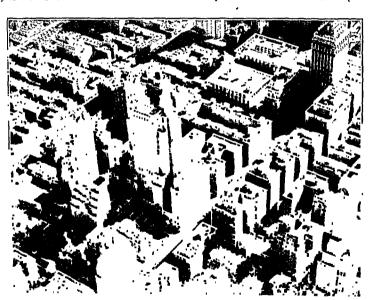
American Museum of Natural History — Columbus Avenue be-

tween 77th and 81st Streets. Open 10 A.M. to 5 r.M.

Metropolitan Museum of Art—Fifth Ave-

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Around Manhattan—A boat leaves from the
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Aerial View of Convention Headquarters and Vicinity

Empire State Building-Any Fifth Avenue bus to 34th Street.

Rockefeller Center (Radio City)—Fifth to Sixth Avenues, between 49th and 51st Streets. Two minutes' walk from the Convention Headquarters.

Statue of Liberty-Reached by boat from the

about three hours and tickets are \$1.50.

Sightseeing Tours—Grayline-Union Motor Coach Terminal at 36th Street east of 6th Avenue, They run a number of recommended tours.

Academy of Medicine (offices of the Med-(Continued on next page) (Continued from preceding page)

ical Society of the State of New York)—Fifth Avenue and 103rd Street, entrance on 103rd Street. Reached via Fifth Avenue bus No. 2.

The larger department stores are:

B. Altman & Company—Fifth Avenue and 34th Street.

Arnold, Constable & Co.—Fifth Avenue and 40th Street.

Best & Company—Fifth Avenue and 35th Street.

Franklin Simon & Company—Fifth Avenue and 38th Street.

Gimbel Brothers—Sixth Avenue and 33rd Street.

Lord & Taylor—Fifth Avenue and 38th Street.

R. H. Macy & Company—Broadway and 34th Street.

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For more complete information, listing hundreds of attractions in New York City, the Waldorf-Astoria maintains an "About the City" Bureau where those attending the convention may apply for information.

Atlantic City in April

Over a million dollars worth of dogs, representing 90 different breeds will be exhibited at the one-day dog show to be held in Atlantic City, April 4. Dr. Charles J. McAnulty of Atlantic City, chairman of the bench show committee, announced today that more than 500 dogs will be entered in the show that is being

(Continued on page 1x)



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(Continued from page lviii)

sponsored by the Kennel Club of Atlantic City in the ballroom of the Million Dollar Pier. The canines, which will be entered in the various classes, will compete for the \$2,000 in prizes, trophies and ribbons.

Atlantic City, in maintaining its reputation for having the earliest and the latest peak seasons of any resort in the world, is already entertaining large Lenten crowds, and the reservations that are pouring into the hotels for Palm and Easter Sundays, many of them for the entire week, indicate a peak year for the resort in every respect. For many years, now, Atlantic City's boardwalk fashion parade during the Eastern season has been considered an event of national interest. Many famous designers, stars of the stage, screen and radio, and famous people in all walks of public life will be seen along the eight-mile wooden way during the week.

A summer program, more extensive and elaborate than any in the resort's history is rapidly taking shape. Among the list of attractions to be enjoyed are the organized fishing parties, the night baseball games, daily band concerts on boardwalk, week-end sailboat races, in addition to unusually elaborate programs of the hotels, theatres and amusement piers.

Where "English" Is "Foreign"

If you think you are a master of the English language ask a British railroad clerk to direct you to one of those places that makes the British Isles a source of interest and wonder to the American tourist.

Although dialects are dying out, you will still find many unfamiliar words in most counties. Along Clydeside, where the Queen Mary has been built, there are numbers of these. For instance, you will come across many people who live in a 'but and ben,' or a room and kitchen. Should you 'chap' at the door they will invite you 'ben'-that is, into the room, or parlour. In Flemish it is 'binnen-gaan,' to go within: in Scotland, 'to gae ben.'

In the kitchen is the 'jawbox'—the sink and in it are 'sapples,' or soapsuds, with which to wash. The rainwater does not run down

gutters but 'none pipes.'

Perhaps you will eat 'champies and soor doock' and enjoy them no less than mashed potatoes and butter milk. If you are asked to a tea-party it may be called a 'cookie-shine'cookies are soft, round plain buns.

Children play with a 'peerie,' which is what they call a spinning-top. They throw 'chuckiestanes'-pebbles. They call their little finger a 'pinkie.' Should anyone tell tales, he hears himself called 'clype,' tell-tale. In school, cor-

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poral punishment is sometimes inflicted with a 'tawse,' which is a leather strap slit at the end into five fingers. A child does not cry but 'greets.' In the playground the children eatch hands and 'birl' round and round. A drive in a cart is a 'hurl'; if it shakes them about it is not shaky but 'shugglie.' They may be stung by nettles, and will tell you that they have been 'jagged' by 'jaggie-nettles,' or it may be a 'cleg,' a horsefly, which has hurt them.

Every year the villages are invaded by 'tattie-howkers.' These are potato diggers from Ireland. They live in 'bothies,' the wooden

houses in which farm workers live.

If anyone is off-colour and pale he is 'awfu' peelywally.' A 'keelie' is a very low and flashy type of townsman. A turkey is a 'bubblyjock.' A splinter of wood is a 'skelf.' If you evade or trick anyone you 'juke' them. Should you feel disgusted by anything you will have 'ta'en a scunner at it.'

All these words are in everyday use in the villages and towns along the Clyde. Sometimes their origin is traceable, sometimes use has so altered them that it would be very difficult indeed to say from where they originally came.

Reduced Railroad Fares in Switzerland

The Swiss Federal Railroads announces that during the entire year fare reductions up to 45% are granted American tourists staying in Switzerland six days or more.

For trips of less than three hundred kilometers (187 miles) the fare is thirty per cent. For longer trips the saving is forty-five per cent

These tickets must read from frontier to frontier stations and can be made up into any combination of rail, lake steamer and postal motor bus and any class of travel. Stopovers are permitted at any station en route.

There are also 8 and 15 day season tickets for unlimited travel in Switzerland, subject to

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Reduction tickets must be purchased before entering Switzerland and are for sale in New York City at the offices of the Swiss Federal Railroads.

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(Continued on page Ixiv)

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 For literature and complete information on this tour, please address Department NY-4. A complete program of special EDUTRAVEL projects in other fields, will also be sent on request.

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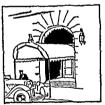




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(Continued from page lxi)

This train carries an excellent orchestra and provides dancing, bridge and other games, with a well-trained hostess in charge. The recreational features are greatly enjoyed by patrons. The smooth double-track, rock ballasted route of the "Florida Special" makes it practical for these features to be provided.

Off the "Aquitania"

Walter Greenwood, the young English pawnbroker's clerk whose novel and play, "Love on the Dole," has skyrocketed his income from a dole to four figures weekly, derived from royalties, publishing rights, etc., arrived March 10 in the Cunard White Star Liner Aquitania to witness the American presentation of his play at the Shubert Theatre. Besides being an author, Greenwood is active in English politics, being a councilman and member of the British Labor Party.

Less than three years ago Greenwood's novel appeared quietly in all the bookstalls of London. Its fame spread so rapidly that the book came to the attention of Doubleday Doran, who re-published it in this country. One of the novel's successful factors, the reviewers agreed, was its authenticity, for Greenwood had written into it many of his own experiences while living on a dole.

In December, 1933, an English theatrical producer sent a copy of the novel to Ronald Gow, the British playwright, who saw in it material for a fine play. At the end of two months together, Gow and Greenwood saw the completion and immediate production of their play, which is the same "Love on the Dole" that after two years in England is duplicating its London success in New York.

World's Sports Physicians Hold Congress in Berlin Before Olympic Games

An International Sports Physicians Congress will be held by the International Sports Physicians Association in Berlin from July 27th to August 1st, to tie up with the XI Olympic Games. Twenty-one nations, including the United States, have so far accepted the invitation of the international body which has appointed the delegates to represent the various countries.

For the United States, Dr. John Brown, Jr., (Continued on page lxvii)



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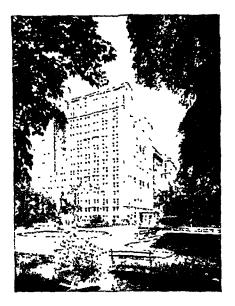
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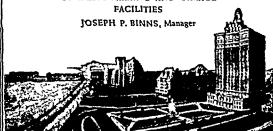
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FACILITIES



(Continued from tage 1xiv)

of New York, and Dr R Tut McKenzie of Philadelphia will participate The other countries to be represented besides those whose acceptance is still outstanding are Argentine, Belgium, Brazil, Chile, Denmark, England, France Holland, Italy Japan, Lithuania, Norway, Austria, Poland, Roumania, Sweden Switzerland Czechoslovakia, and Hungary

Among the subjects to be treated at the Congress will be metabolism circulation, respiration training hygiene psychology, traumatology medical and recreational gymnastics constitution biometrics, sport and availability in the conditional properties and biological and social questions

On July 27th a reception will be held, and on July 31st the participants in the Congress will make excursions into the beautiful surroundings of the German capital On August 1st they will participate in the opening ceremonies of the XI Olympic Games on the Reich Sport Field

Travel Brevities

Doctors Arriving at the Chalfonte Haddon Hall Atlantic City, during March included Dr and Mrs Samuel B English, Dr and Mrs Wm E Traver, and Dr and Mrs Wm C Durrin from New York, Dr and Mrs T B Lee. Dr and Mrs B K Thomas, Dr and Mrs James Phelps, and Dr and Mrs S W Johnsen of New Jersey, Dr and Mrs J Walter Levering Dr A Edgur Park, Dr I Stokes Dr and Mrs C E Johnson and Dr and Mrs J Albright Jones, from Penn sylvania Dr and Mrs R J Rendall of South Carolina Dr George C Finley of Connecti cut, and Dr and Mrs A E Brant of Ohio Early March arrivals were Dr and Mrs Austin G Morris Dr and Mrs R A Fraser. Dr and Mrs J A Taylor, Dr William Affelder Dr and Mrs R J Lynch Dr and Mrs D W H Shermon and Dr H A Keune from New York, Dr H W Banks and Dr and Mrs W L Amthor from Penn sylvania Dr and Mrs John B Goodall Dr Victor DuBusc and Dr and Mrs Albert D Greene of New Jersey Dr and Mrs F E Spencer of Delaware, and Dr and Mrs B R Roobler of Michigan

Aboard the Canadian Pacific steamship Empress of Australia bound for a fourth cur rent cruise to the Caribbean were Dr and Mrs

(Continued on page lxviii)



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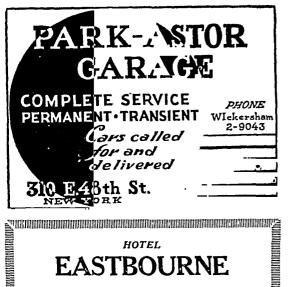
on THE ATLANTIC at

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NEW JERSEY

Joseph D. Sleck, Dr. Bernard J. Manning, and Dr. and Mrs. Thomas A. O'Brien.

SAILING for a six-day cruise on the Cunard White Star liner Carinthia were Dr. and Mrs.



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H. S. HAMILTON, Proprietor John D. Booth and Dr. and Mrs. Frank C. Cole.

OUTWARD BOUND for Bermuda, the Queen of Bermuda recently carried Dr. and Mrs. Clark Staples and Dr. and Mrs. R. H. Kistler.

Among those enjoying the pleasant environments of Bermuda and the Hotel Bermudiana were the following-Dr. and Mrs. N. N. Copeland of Massachusetts, Dr. F. H. Baehr of the same state: Dr. R. H. Kistler of Pennsylvania, Dr. and Mrs. Leon J. Galpenin of West Virginia, Dr. S. L. Friedman of New York, and Dr. O. H. Albanesius and Dr. George Williams of New Jersey.

AT the St. George Hotel in Bermuda, Dr. Fred L. Mackay of Canada is spending a well earned rest.

REGISTERED at the Elbow Beach Hotel and evidently enjoying a pleasant time in Bermuda are Dr. and Mrs. Harry Newman of New York, Dr. and Mrs. M. M. Braff of Massachusetts, Dr. and Mrs. Fulcher of West Virginia, Dr. and Mrs. J. M. Masters of Massachusetts, Dr. and Mrs. R. Strauss of Ohio, and Dr. S. S. Bernstein of New York.

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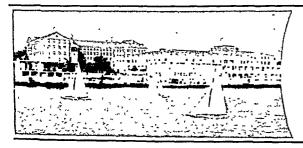
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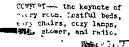
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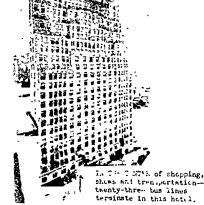
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This survey included a thorough inspection of the plant forms active in August, a careful study of flora active at other times, and interviews with disinterested persons. Professor Hodgson's findings were published in a report which gave new official confirmation of an old truth about Bermuda. To quote from his report: "... the Colony passed a hundred per cent as a sanctuary for hay-fever sufferers."

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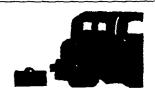
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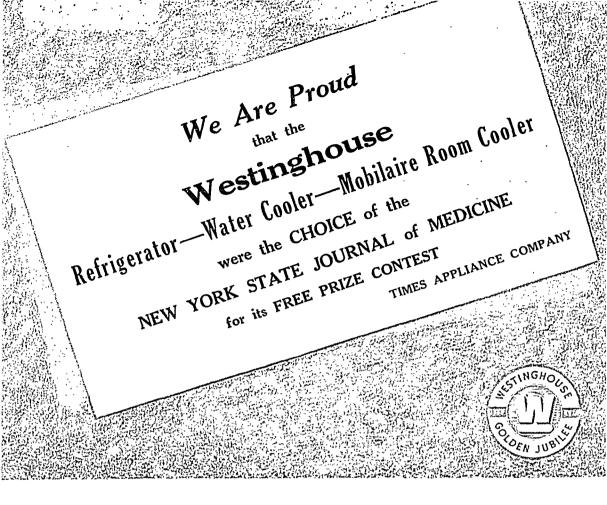
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Case Report—Subcutaneous Emphysema Complicating Labor
Between Mental Health and Mental Disease-Impending Danger
Special Historical Article—The Medical History of Schenectady County
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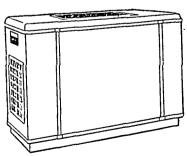


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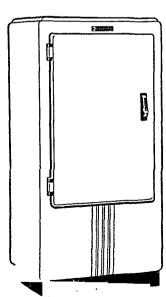


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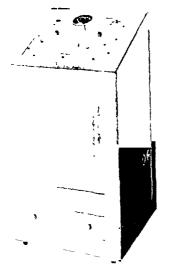


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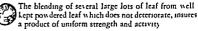
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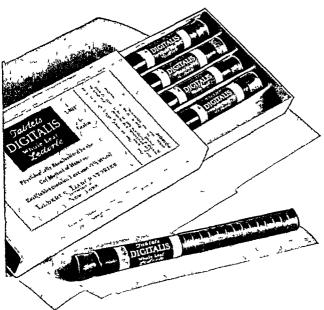
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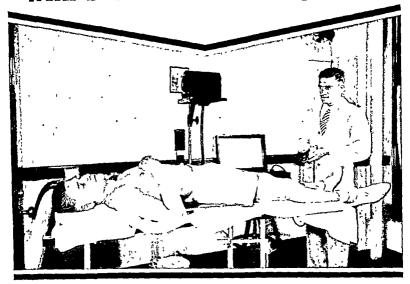
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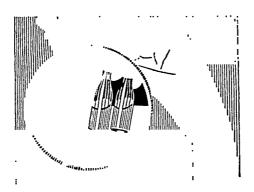


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MODERN RENAL SURGERY With Particular Reference to Heminephrectomy

Hospital

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It is the purpose of this article to call attention to the progress made in operations upon the kidney in recent years. Two years ago the author, with his associate Dr. C. C. Bishop, in some experimental problems on the kidney of the dog, proposed a new operation for the repair of renal wounds. From this pre-liminary experimental work, a series of operations on the kidney have been developed in which the same principles have been utilized to repair the kidney following operative or traumatic wounds with equally good results.

Our experience with experimental operations upon rabbits and dogs using plain ribbon gut as a medium with which to close kidney wounds has proven to be entirely satisfactory. Fixing this material in a proper place by threading it through straps in the fibrous capsule is successful in maintaining the ribbon gut in the place desired for proper closure of the kidney wound or wounds.

Thin strips of fat inserted in the kidney wounds have been proven by animal experimentation and clinical observation upon human beings to be the most satis factory material as an aid in hemostasis Bits of muscle have also been utilized, but these are not nearly so effective in causing a cessation of kidney cortical bleeding

Microscopic studies demonstrate the thoroughness with which small particles of fat are incorporated in the healed wounds of the kidney. Large pieces of fat also may be included in the wound, but small ones are just as effective and are more easily absorbed by the healing kidney.

The ribbon gut properly tied around the kidney causes no pressure necrosis and postmorten specimens of animal kidneys show conclusively that there is no destruction to the kidney such as one sees when needles are passed through the cortical substance in the usual manner

Nephropexy is perfectly performed by using three week chromic ribbon gut with needles attached to each end. A sling of this material fixed in position around each pole of the kidney and tied firmly but not too tightly will be effective in holding the elevated kidney in whatever position it is placed at the operating table.

It has been definitely proven by experimental and clinical observation that great destruction of the kidney may occur without rupture of the fibrous kidney capsule. As a matter of fact, pulpifaction of a large part of the kidney cortex may occur without any perirenal infiltration of either blood or urine until many days after the traumatism responsible for the lesion. This may often occur only after the fibrous capsule has been digested by the juices liberated under it.

Our experience with animals, as well as the histories of many human cases, lead us to suggest that every case in

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The author wishes to express his gratitude to the surgeons of the New York Hospital who have allowed their cases to be used in this study and particularly to Dr. Payson Adams for his assistance in the experimental surgery

which renal traumatism is suspected be immediately hospitalized and carefully observed. If blood continues to be passed in the urine longer than twenty-four hours, or if there is lassitude, fever, rapid pulse or any of the ordinary evidences of absorption, an exploratory operation is recommended.

Upon exposure, if subcapsular hemorrhage, evidence of laceration of the kidney cortex, or any other traumatism is noted, it is advisable to open the kidney capsule and drain the damaged portion by means of soft rubber tube or Penrose drain. Bleeding, if still persistent, may then be controlled by inserting small bits of fat and fixing them in position by tying ribbon gut around the kidney and over the affected portions. The gut may be fixed in any desired position by means of three or four straps made in the fibrous kidney capsule.

In none of our cases thus treated has there resulted a death, nor has there been a persistent urinary fistula. On the other hand, in cases where the kidney capsule has not been opened and the traumatized area drained, as in the case of "N.C.", here reported, a complete destruction of the kidney has resulted which also became a great menace to the patient's life; and, except for prompt and efficient surgery, would have resulted in death from hemorrhage and infection.

The present report concerns particularly the operation of heminephrectomy. This procedure may occasionally be performed upon kidneys with one pole destroyed by stone, tumor or nontuberculous infection. In tuberculosis, even if the disease is apparently limited to one pole of the kidney, experience has taught us that nephrectomy is the operation of choice.

The control of hemorrhage is the most important consideration in the performance of heminephrectomy. The author, assisted by Dr. Adams, conducted a series of experiments in the Department of Experimental surgery* upon dogs in 1934 and brief protocols of some of these experiments are as follows:

Dog CO 10. Jan. 16. Anesthesia: Ether. Operation: Heminephrectomy, Kidney exposed in usual manner. Peritoneum stripped to the kidney. One small hole torn in the peritoneum, repaired with plain catgut. Four belt buckles made in the usual manner, an additional buckle made one-half inch above and between the anterior two buckles and posterior buckles and also through the extra buckle placed between the two. It was then placed through the posterior inferior buckle and the additional buckle made. The other catgut tape was placed in through the anterior superior and additional buckle on either side. The lower fourth of the kidney was then removed. A small tab of fat placed in the bed. Two tapes were tied holding fat firmly in place.

At this point the dog ceased to breathe, artificial respirations failing to revive nim. The two kidneys were removed and photographed as shown in Fig. 1.

Cause of death: ether anesthesia.

Dog CO 27. January 23. Anesthesia: Ether. Operation: Heminephrectomy. Left lumbar incision, kidney exposed in the usual manner, peritoneum stripped from the kidney with perforating peritoneum. Eight belt straps made; two double straps were placed on the anterior surface of the kidney. The double straps being about one cm. apart, two double belt straps placed on the posterior surface of the kidney. These were located in about the median portion of the kidney. Split catgut tape about four inches in length placed through each of these double straps and tied loosely. The ends left free for tying purposes, lower fourth of the kidney was then removed. Moderate bleeding encountered except near the renal pedicle where there was marked bleeding, one large spurter. A piece of fat size of thumb nail placed in the had of the little of of the l in the bed of the kidney, the ends of the pre-viously placed tapes were brought over and tied in a criss-cross manner. All bleeding was stopped except near the pedicle. Another small tab of fat was placed over the spurter. A plain number one catgut ligature placed medial to this point, the end being used to tie with one of the pieces of tape holding the fat in place. This did not stop all the bleeding so another catgut suture was placed through and tied; all bleeding points stopped; kidney placed back in bed. Wound closed in usual manner. 150 c.c. of saline injected intraperitoneally. Dog left table in good condition,

Autopsy by Dr. Adams. Dog died March 22 (See Fig. 2). A mid-line incision opening into the peritoneum showed no evidence of peritonitis. Bladder opened; x-ray catheter placed in the ureters; x-rays were taken after injecting five c.c. of Skiodan twenty per cent; autopsy then continued. An incision made through the well-healed scar showed no evidence of infec-tion, kidney was found just beneath the muscle layer fairly adherent to it and otherwise in good condition. There was moderate perirenal reaction but no evidence of infection. The left kidney was about one-half the size of the right kidney. The left kidney was only slightly scarified at the lower pole; catgut was well absorbed and practically all evidence of heminephrectomy was gone except slight dimpling at the lower

^{*}Sincere gratitude is expressed to Professors Heuer and Sweet of the New York Hospital, Cornell Medical College Association for extending the facilities of the Department of Experimental Surgery to the author and his associates.

pole. The right kidney appeared to be hypertrophied. Ureters were normal, not dilated or giving evidence of infection. Heart, liver, lungs, and spleen grossly normal. No definite cause of death was found.

Dog No. 5. January 2. Anesthesia: Ether. Operation: Left Heminephrectomy. Left lumbar incision through skin, superficial fascia and muscles. Renal fascia was incised. Kidney delivered into wound. Peritoneum was dissected free from the kidney and in the process of doing so, one hole was made in the peritoneum; this was closed with number one plain catgut. A fiveeights inch ribbon catgut was split in two and this was used for the repair of the kidney wound. At a point one-third the distance up from the lower pole of the kidney an incision one-half inch in length was made in the kidney capsule. The knife was then placed under the capsule lifting it up and freeing it from the kidney and brought out from the capsule onehalf inch from the first incision forming a strap composed of capsule of the kidney. Three of these straps were made at equal distances about the kidney. The split tape was then brought through these straps and tied about the kidney firmly. An elliptical incision was made in the lower pole of the kidney removing the lower quarter of the kidney. There was profuse bleeding, several large vessels were encountered. A piece of fat was immediately placed in the wound and held firmly for five minutes. Two transverse belts were applied, this was done by making an incision in the capsule of the kidney one-half inch from the cut surface bringing it under the previously placed strap. This was done at the opposite side bringing the tape over the fat and holding it firmly in place. At the end of the procedure all bleeding was entirely stopped, the kidney was placed back in its posi-tion, number one plain catgut used to suture the kidney lumbar incision. Fine silk subcutaneous suture for the skin. Due to the loss of blood encountered during the operation 150 c.c. of normal saline were injected intraperitoneally. The dog was in good condition at the close of the operation.

Cystoscopy: February 13. A number 24 B.B. cystoscope passed into the bladder with considerable difficulty. Both ureteral orifices were made out but neither could be catheterized with either the convex or concave Brown-Buerger cystoscope. The catheter would approach the ureteral orifice but it could not be made to enter the ureter. After an hour of labor the

cystoscopy was discontinued.

Pyelogram: The right pyeloureterogram did
not show up very well. Apparently the calyces
were within normal limits. Pelvis and ureter
within normal limits. The lower pole of the
feft kidney showed no leakage. There was an
extravasation at the ureteropelvic junction. The
remainder of the kidney was within normal
limits. Excellent healing without leakage.

Autopsy by Dr. Adams. Died February 16. The dog was up and about its cage and running about until it was cystoscoped, since then the dog had done very poorly and was sacrificed. An incision was made in the skin which was still opened down to the muscle layers; there was evident infection of the operative wound.

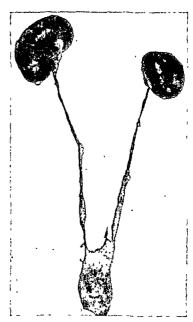


Fig. 1. Dog CO 10

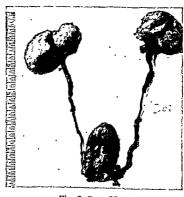


Fig. 2. Dog CO 27

The kidney was found plastered down to the under surface of the muscle layer but otherwise in good position. Catgut sutures were not entirely absorbed the kidney was about twothirds the normal size. No evidence of infection or extravasation of blood. Ureters were normal; liver, spleen, heart, and lungs essentially negative. Midline incision was made, the bladder exposed, and catheters placed in to the ureters and twenty per cent sodium iodide injected about ten c.c. on the left and five on the right. Cause of death: P.O. cystoscopy.

Dog No. 3. January 4. Left Heminephrectomy Ether: Anesthesia. Left linear incision through skin, superficial fascia, and muscles. Kidney exposed and denvered into the wound. Peritoneal cavity was dissected free from the kidney and in doing so one hole was made in the perineum which was repaired with number one plain catgut. Four straps were made in the kidney capsule at a junction of the lower and middle third. The straps being in a transverse direction, these were made by incising the capsule for a distance of one-half inch and lifting the capsule from the cortex and plunging the knife through at a point of one-half inch dis-tance. Half-width kidney tape was used and threaded through from the strap on the under surface of the kidney to the corresponding one on the anterior surface of the kidney. These were put in place and the lower quarter of the kidney removed. Profuse bleeding encountered; two pieces of fat were placed in the bed of the wound and the kidney straps brought over and tied firmly. In the process of tying one of these straps gave way and another kidney cap-sule strap was made. Within three to five minutes after the hemineohrectomy the bleeding was completely under control. Kidney replaced in its bed. Three plain number one catgut sutures for the repair of the deep tissues subcutaneous silk stitches for the skin.

Dog received 150 c.c. normal saline intraperitoneally. Dog left table in good condition.

Autobry by Dr. Adams. Dog died February 8. This dog was in excellent condition following operation. Wound was clean, dog very active, and apparently in excellent condition. Attempt at cystoscopy was satisfactory until the dog ceased to breathe, apparently due to ether anesthesia.

The autopsy showed wound well-healed and numerous adhesions about the kidney which were adherent at the lower pole. The left kidney when exposed looked very near normal except that it was small in size; lower pole had completely healed; there was still some of the catgut tape present. There was no evidence of hemorrhage or infection. The right kidney was normal, otherwise the autopsy was entirely negative.

Dog T-18, January 9. Operation: Left Heminephrectomy. Anesthesia: Ether. Left lumbar incision through skin superficial fascia and muscles, locating the triangle of Petit. The perinephritic fat incised, kidney delivered by spreading the wound and pressure on the abdomen. Peritoneum stripped off the kidney; no holes made in the peritoneum. Four belt straps made in the kidney capsule in a linear direction about the midportion of the kidney. Five-eighths

inch tape catgut split in two; this was laced through two of the previous straps, one on the anterior and one on the posterior surface of the kidney looping over the lower pole. Heminephrectomy of the lower quarter of the kidney; there were at least three vessels encountered which bled profusely with a marked general coze of the raw surface. Flat piece of fat size of a quarter placed on the raw surface and held firmly there, while the previously placed tapes were placed over the fat and tied firmly. In the process of doing so, the posterior superior strap pulled partially loose and bleeding was encountered in this area. One catgut suture was placed at this point and a small tab of fat sutured over this bleeding area which promptly stopped hemorrhaging. Within three to four minutes after the heminephrectomy was done all bleeding was stopped. Kidney placed into its bed. One catgut for deep layers and silk subcutaneous for the skin. No drain in intraperitoneal infusion. Dog left table in good condition.

In the midst of the operation the dog ceased to breathe but several artificial respiratory

movements revived him.

X-ray: The control kidney right showed normal calyces, kidney pelvis, and ureter. The left kidney operated upon (heminephrectomy) showed a deficiency of the lower calyces and an extravasation of the injected material from the ureteropelvic junction apparently. Otherwise it was within normal limits.

It is considered that this was an excellent

healing.

Autopsy by Dr. Adams. Dog died February 16. Midline incision made in peritoneum exposing no evidence of peritonitis. Bladder opened and x-ray catheters placed in the ureters; 15 c.c. of sodium iodide injected (left 7 c.c.; right 8 c.c.). The left lumbar wound was well-healed; this was opened up and only a small amount of liquifying material was found in the incision. No gross evidence of infection. The kidney was very adherent to the under surface of the muscle layers; no evidence of hemorrhage or extravasation. The lower pole of the kidney was irregular, otherwise the kidney appeared grossly normal except that it was about two-thirds normal size. The tape appeared to be fairly well-absorbed except for a few strands remaining. Ureters were normal. Heart, lungs, light processing process. liver, and spleen grossly normal.

Cause of death was undetermined.

Dog S10. January 10. Left heminephrectomy Ethylene Anesthesia. Kidney exposed and delivered into the wound by the usual procedure. Peritoneum stripped from the kidney without tearing into the peritoneum. Three belt straps were made by the usual method running radially about the lower third of the kidney. The lower quarter of the kidney was removed. There were three profuse bleeding points encountered in the bed and one very large spurter near the renal pedicle. Pad of fat size of a five cent piece placed in the bed and held firmly. The catgut tape which had been threaded through the belt straps previously was placed and brought over the fat and tied firmly anteriorly and posteriorly. The posterior inferior belt strap pulled loose in tying and it was

necessary to make another belt strap and the tape brought through and tied again. There was still one bleeding area near the kidney pedicle requiring the catgut tape to be brought around the renal pedicle tying very loosely and not tying off the circulation but holding a small piece of fat at this area. Four or five minutes after removing the lower pole of the kidney, all bleeding points were stopped. Closure in the usual manner. 150 c.c. of saline injected intraperitoneally. Dog left table in good condition.

Autobsy. Dog died January 20. This dog was very much undernourished and rather scrawny looking. Incision was made from the symphysis pubis to the superior sternal notch, peritoneum opened and very many adhesions found throughout the intestinal tract; slight injection of the vessel and intestines, but no definite peritonitis;

no fluid present.

The right kidney was in normal position and grossly normal. The left kidney was found bound down by many adhesions particularly at its lower pole which had previously been nephrectomized. On freeing this kidney there was a large pocket of pus found well walled-off by adhesions, apparently rising from the lower pole of this kidney. Close examination of this kidney revealed much exudate and degenerated fat at the lower pole. The fat was still in place and firmly adhered to the bed of the wound in the kidney. Several small strands of the catgut tape were still present and well-preserved. At one point the tape could be seen still placed through the belt buckles but at other points the tape was not in the original position. Much of this tape which was not in its original position had no doubt been absorbed. The other belt buckles could not be demonstrated but in several places the capsule was absent over small areas which no doubt represented the points at which the straps had previously been made; the rest of the kidney appeared grossly normal. The kidneys were taken and sent to the Pathological Laboratory for gross and microscopical examination. Ureters appeared normal. Lungs, heart, and the viscera appeared normal.

Cause of death: Sepsis from local abscess about the left kidney. Wound was clean and well-healed.

Dog TCO-13, January 12. Left hemisephrectomy. Anesthesia: Ether. Left lumbar incision through skin; superficial fascia. Kidney exposed and delivered into wound. Peritoneum stripped from the kidney and in this process one hole was made in the peritoneum which was sutured with number 0 catgut. Four belt straps made at a point at the junction of the lower and middle third of the kidney running radially split; fiveeighths inch tape placed through two of these straps, one anteriorly and one posteriorly. The straps, one anteriority and one posteriority. And the lower quarter of the kidney was removed, profuse bleeding encountered; flat piece of fat size of thumb nail placed into the kidney bed. Tape brought over and tied, holding the fat first provided in its place. Bleeding stopped within a few minutes effect removing. Chemical profusers are provided to the provided profuser of the provided profusers and the provided profusers are provided profusers. minutes after removing. Closure in the usual manner. Portion of kidney tissue removed was sent to the laboratory for microscopic examination.

No saline intraperitoneal infusion. Dog left table in good condition.

Autopsy. Dog died January 30, Wound was well-healed superficially. It was opened up and a small amount of pus and liquified fat found in the muscular layers but there was no sign of infection about the kidney. Left kidney was bound down by a few friable adhesions. Upon exposing the kidney it was accidently cut. After the kidney was removed it was found to be about three-fourths of normal size. The catgut tane placed at operation was still in place holding a small tab of fat in the bed of the kidney; there was no exudate or evidence of pus or hemorrhage; rest of the kidney appeared grossly normal; ureter was normal. Right kidney was normal, no evidence adhesions. Heart, lungs, liver, and spleen grossly normal,

Cause of death was mild deep seated infection of operative wound. Toxemia.

Dog R. S. January 30, Operation: Left heminephrectomy. Anesthesia: Ether. No preparation. Left lumbar incision, kidney exposed in the usual manner. Peritoneum was opened; this being a small dog the kidney was smaller than usual. Peritoneum was stripped from the kidney. Four double belt straps were made about the midportion of the kidney; two were placed near the pelvis anteriorly and posteriorly and the other two near the periphery anteriorly and posteriorly. Split five-eighths inch catgut tape was placed through each of the double straps and tied firmly; the ends being left long for tying purposes. Lower quarter of the kidney was then removed, care being taken not to make an incision too near the pelvis. Moderate bleeding throughout the bed of the incision with one larger spurter. Small tab of fat the size of the end of thumb nail was placed at the end of the kidney. Ends of the previously placed catgut tape were then tied over the bed of the kidney holding the fat firmly in place. There was still some bleeding at the lowermost portion of the incision necessitating another piece of fat being placed at this point. One of the of tal being placed at this point. One of the capsule and tied, holding this last tab of fat in place. There was only moderate bleeding encountered throughout operation. Closure made in the usual manner. No intraperitoneal clysis.

Dog left operating room table in good con-

Autopsy by Dr. Adams. Dog died February 12. The left lumbar incision was slightly infected. All structures grossly normal except the kidneys. There was a perinephretic abscess about the left kidney containing about 11/2 oz. of thick yellow pus. The heminephrectomy wound was well-healed; most of the catgut tape was absorbed; there was no evidence of hemorrhage whatsoever. The left kidney appeared quite normal except that it was quite small in size and slightly irregular at the lower pole. The right kidney was normal.

Bilateral pyelograms were taken with two number six x-ray catheters placed into the ureters through the bladder at the time of autopsy the kidneys being in their normal position.

Cause of death: Sepsis (Left perinephritic abscess).

On the side of the heminephrectomy at lower pole there was an opening about one cm. in size connecting with the pelvis.

Heminephrectomy will most often be applied to disease of one side of a horseshoe kidney, hence this condition will be discussed thoroughly in this treatise.

Heminephrectomy in Horseshoe Kidney

The literature on horseshoe kidney is extremely voluminous. The most recent monograph concerning it gives 107 references, and makes no pretense of being complete. There is no need therefore, to occupy any time in discussing the anomaly per se.

Operation upon horseshoe kidney is comparatively modern, for, until the era of anesthesia, the anomaly of necessity had remained merely a curious finding at the autopsy table. But, with the patient under an anesthetic, exploration of the renal region became possible, so fused kidneys were now and then brought to light in the living subject. In this way, it was early recognized that anomalous renal organs are at least four times as liable to disease as those normal in contour and position. The elaborate statistics of Botez published in 1912 place the morbidity of fused kidney as opposed to normally placed kidneys at 16¹/₄ per cent, while Beyer, writing in the same year reported the finding, among 265 fused kidneys recorded, of 102 which came under observation because of some pathologic condition, which is almost forty per cent.

The increased liability to disease displayed by the horseshoe kidney is easily explainable when we consider how its anatomical and physiological relations are affected by its anomalous nature. The position of one pelvis must always be anterior and the insertion of one ureter —frequently both—is of necessity abnormal, in that its point of origin is higher than the declining portion of the pelvis. The entire course of one or both ureters may be altered, often making the congenital narrowings of the lumen occur at points peculiarly liable to stricture formation. Frequently too, congenital stricture may be present in addition, and the occurrence of numerous anomalous blood vessels serves still further to increase the liability to stricture and compression of the ureters. The tendency to urinary stasis with its inevitable sequels of stagnation and infection is thus shown to be very much greater than in normal conditions and it is not at all surprising that hydronephrosis and urinary calculus form the largest proportion of the diseases affecting fused or otherwise anomalous kidneys. It is also probable, as Israel long ago maintained, that an anomalous kidney is actually less efficient and less resistant to disease than one in every way normal.

The great advances in urologic diagnosis which the twentieth century has witnessed now make the diagnosis of horseshoe kidney a comparatively easy matter. But, until very recently, this was far from being the case; and the majority of operations done were undertaken in the belief that the pathologic condition was either extra-renal, or situated in an anatomically normal organ. When Papin and Palizolli compiled their statistics in 1909, they found records of eighteen cases of unilateral fused kidney which had undergone operation. Four of these had been removed entirely, the result being the rapid demise of the patient from complete anuria. When the intervention found the fused kidney centrally located, as is the situation of the majority, this fatal error was not so likely to be made, recognition being much easier. Better means of diagnosis, and more complete analysis of the individual case, in more recent times, also assisted in avoiding this error.

The first surgeon who had the hardihood to attempt to remove the diseased half of a horseshoe kidney appears to have been Braun in 1882. He was unsuccessful for the patient was lost, and it was not until six years thereafter that anyone else attempted to emulate him. In 1888, however, Socin succeeded in curing a patient suffering from intermittent hydro-nephrosis, by first opening the dilated kidney pelvis and later, when relief was not afforded, by taking out the entire affected half. Koenig, in 1895, resected a sarcoma from one side of an infant's horseshoe kidney, the case being an interesting side light upon the relation between anomalous viscera and sarcomas of infancy. Five years later, Czerny made a similar attempt to remove an angiosarcoma, but was unsuccessful, death promptly intervening. Lotheissen (1896) failed in attempting to remove a cyst.

With the opening of the twentieth cen-

tury, improvements in diagnosis and technic made operation upon anomalous kidneys somewhat less hazardous and more satisfactory. The inaugural dissertation of Geiss at Marburg in 1899 told of the successful removal of a hydronephrotic left half, after an ineffectual nephrotomy had been first performed. Czerny also, had success in doing a similar intervention. Rümpel and Kümmel are credited with the cure of a calculous pyonephrosis by heminephrectomy (1902), while Barth was the first to accept tuberculosis of one side as an indication for its expiration (1904). In 1908 Israel's monograph on the diagnosis and surgical management of anomalous kidneys listed two successful cases; one, a left hydronephrosis, initially nephrotomwithout benefit, and the other, a second case of renal tuberculosis, wherein patient survived but a fistula remained. Clairmont in 1906 gave an account of heminephrectomy in the horseshoe kidney of a child of two years, who had developed hydronephrosis because of the anomalous position of the ureter.

From that time forward, heminephrectomy in the diseased horseshoe kidney became fairly common. Albarran (1907), Desmaret (1910), and Roysing (1911) (1910) and Gerard (1911) carried their patients safely through the operation, only to see them succumb after a few weeks. Altogether, up to the year 1928 accounts of ninety-two cases have been found in the literature. Since 1920, and during the past five years in particular, the operation has become so well accepted that many operators fail to publish reports. This is very much to be regretted, because, although we now know that the condition is by no means so rare as it was once supposed to be, it remains sufficiently uncommon to be a pitfall for even the most careful diagnostician, so that any information concerning it has an ever-present interest. Only by the continual amassing of such data can a standard practice be worked out and maintained, which can successfully cope with the many manifestations of this renal anomaly.

Operative Technic

Anesthesia Used. The type of anes-

thesia employed by us is spinal; however, there is no objection to any type of local or regional bloc which really anesthetizes. Local anesthesia is to be preferred to every type of general anesthesia.

The operative technic employed by us is as follows:

The patient is placed on the opposite side and held by small metal braces fitted to a kidney elevator which holds the patient in excellent position on a narrow table eighteen inches wide specially constructed for renal operation. The patient's hands are clasped and the elbows approximated as if in an attitude of devotion. The upper leg is stretched out straight, the under knee is drawn as high up as possible. Thus the elbows and the underneath knee serve as braces to hold the patient in such a position that the loin of the affected kidney is straight up and the patient is neither on his back nor his belly but exactly on his side. If this position is not maintained when the elevator is raised, it is corrected by the use of a broad strip of adhesive tape which fixes him firmly on the table in any desired position.

The incision extends from the costavertehral angle parallel to and below the twelfth rib. It is extended downward and mesially until it is about ten inches in length. Care is taken to avoid injury to the twelfth nerve and its branches, and the ilioinguinal and the iliohypogastric nerves are carefully preserved from injury. Occasionally a branch of the twelfth nerve will extend across the incision. When this happens a careful dissection will often allow the nerve to be retracted to the proximal side of the wound and thus prevent injury.

The fascia covering the erector spinae muscles is incised both above and below where it takes part in the formation of the costovertebral ligament. This allows the rib to swing up and makes rib resection unnecessary in most instances. The fascia is incised, the muscles divided, and the deep fascia nicked in the costovertebral angle. This incision is widened and the peritoneum carefully protected as it is stripped back. If it is accidentally injured it is immediately repaired. The surgical crime involved is not in the injury to the peritoneum, but rather lies in not recognizing it or in neglecting to repair it when injured.

Advantage should be taken of the entire length of the wound and if the original incision is not ample it should be increased until there is plenty of room. It must not be forgotten that wounds heal from side to side and not lengthwise. If proper care

is taken there is no reason why a ten inch wound should not heal as rapidly and as

firmly as a four inch wound.

The fatty capsule surrounding the kidney is then grasped well up in the costovertebral angle and opened. This opening is increased by blunt dissection until the cortex of the kidney is seen. The fatty capsule is then separated from the kidney. During this process it will be found necessary to tie off many aberrant vessels because it is a peculiar fact that anomalous kidneys have the faculty of deriving the blood vessel communications directly from the nearest large vessels; and, while the ordinary vessels do exist, the aberrant vessels are numerous and may come from any nearby large vessel.

Having separated the upper pole of the horseshoe kidney and secured the bleeding points, the ureter is then dissected down as far as possible, stump ligated and incised with a cautery or with scissors, and the cut cauterized by carbolic which is neutralized with alcohol,

The dissection is continued and any vessels encountered are secured. The isthmus is recognized and freed from surrounding adhesions of every character. The diseased portion of the horseshoe kidney is then excised by making a V shaped

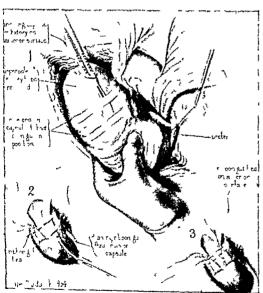


Fig. 3

1-Kidney exposed making incisions in capsule of kidney on anterior surface. The upper limits of the upper incision is the line of resection for the removal of the upper pole

2-Ribbon gut has been drawn through the capsular incisions and tied Ribbon gut is being drawn through the other set of incisions.

3-Shows the ribbon gut tied on anterior surface of kidney.

incision into the isthmus, the apex of the V pointing to the sound side. Upon removal of the excised portion the isthmus is repaired by means of ribbon gut which has already been placed in position through the fibrous capsule by means of the Lowsley needle, with a small bit of fat placed in

the V mentioned above. (Fig. 3, 4, 5.)
Penrose drains are placed down to the excised isthmus and the wound closed by layers, plain catgut being used except in the skin, where silk or silk worm gut is

used in interrupted sutures.

Postoperative care

Postoperative care is that usually given to nephrectomy cases. If a considerable amount of blood has been lost, whole blood transfusions are administered. If the patient does not take fluids well, they may be administered in the form of five per cent glucose intravenously, salt solution by hypodermoclysis or tap water in eight ounce doses per rectum, or all three methods if deemed advisable.

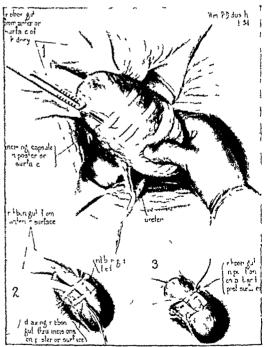


Fig. 4

1-Kidney exposed and making incision in capsule on posterior surface.

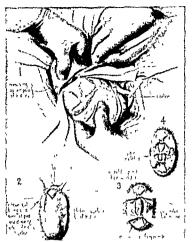
2-One ribbon gut tied and the other being drawn down through the capsular incision The ribbon gut from the anterior surface can be

3-The strands of ribbon gut have been placed and tied and the kidney prepared for

Case Reports

N.C., 1905 (See Table I) Diagnosis. Hydronephrosis, left (Patient shot in left loin several years before and bullet never recovered.) Operation: "Partial nephrectomy (Dr. Bolton). A transverse incision was made in the left loin, two fingers breadth below the twelfth rib and deepened through external and internal obliques and transversalis muscles, cutting across their fibers. The outer edge of the quadratus lumborum was divided and the muscle retracted inward and the perirenal fat exposed. This was torn through and the kidney exnosed It was found largely replaced by a hydronephrotic sac which was opened and a considerable quantity of hydronephrotic fluid evacuated. The calyces were explored and no trace of the bullet found. Large clamps were placed on the sac close to the pelvis of the kidney and the sac cut away and stumps ligated by transfixion with No. 3 plain. A few sutures of No. 2 plain were taken to close over the open stump. Considerable hemorrhage was encountered and was mostly controlled by pressure, and ligature with No. 2 plain. No trace of the bullet was found anywhere about the kidney and the wound was packed with iodoform gauze and the cut ends of the muscles brought together in layers with No. 1 plain and the skin closed with a few interrupted sutures of silk worm gut."

K M., 1914 Diagnosis: Tuberculosis of kidney, left. (Diagnosis not confirmed by pathological report.) Operation: "Resection of kidney (Dr. Gibson). Patient in left lateral position. Incision about six inches long made obliquely on the right side of abdomen between ribs and iliac crest. Incision deepened down to retroperitoneal fat. Kidney located. Apparently normal or



ig. 5

- 1—Shows ribbon gut in place and the upper pole of the kidney is being removed. The line of incision connects the upper line of the capsular incisions.
- 2—Kidney viewed from lateral border and showing the pad of fat in place to be used for hemostasis and the ribbon gut is drawing the cut surfaces of the kidney together.
- 3—Kidney viewed from upper pole and showing the ribbon gut tied over the fat and the edges of the kidney drawn together with hemorrhage controlled.
- 4-The loose ends of the ribbon gut are tied together further insuring complete repair.

TABLE 1. HEMINEPHRECTOMIES

Patient History number of N C 1905-No 29814	Age Sez Diagnosis S 27 M Hydronephrosis.	de Treutment Anestheria L "Partial pephroc-Gas & ether	
		tomy"	r None . 29 1 "Sinus 2 in long leading toward
K. M 1914-No 195639 (lat S. D. No 1)	23 F Tuberculosia ,	R "Resection of kid- Gas & ether ney" (area about one inch diameter.	hlum of kidney" on discharge.
L H 1929—No. 286129 (No. 9 " Carri- noma ")	kidney (Horse-	upper pole) L Heminephrectomy Spinal (left side of horse- (novocain)	None . 21 . 1
M M 1930—No 292846 (No. 196 Neph- rolithiasis)	30 F Nephrolithiasis .	shoe kidney) L Hemmephrectomy Paraverte- (about two rm. bral (with lower part of kid- ether)	None 22 1
A P. 1931-297734 (No. 108 Tuber- culous of kid-	24 F Tuberculosis	ney) L Reminrephrectomy Spinal. (upper part of kid- ney)	Severe secon- 27 1 Left nephrectomy dary hemorrhage 10th one year later for persuate fedular
D E 1935—No 88517	51 M Horseshoe kid- ney (bydro- pyonephrosis)	L Hemmephrectomy Spund (left ball of borse- (novocain abor kidney	None 25 1

PSYCHIC FACTORS IN GASTROINTESTINAL DISEASE

GEORGE EATON DANIELS, M.D., New York City

The manifestations of gastrointestinal disease that entail psychic factors are so numerous that it would be obviously impossible to cover the whole field in a short communication. One would not only have to deal with psychic factors as a primary cause, but with psychic disorders which are secondary to organic disease of the tract. I will therefore confine myself to a limited aspect of the problem in which psychic factors have a primary importance, but I wish also to emphasize the physiological aspects of certain of these psychic processes which, although displaced and disguised, furnish more than an imaginary basis for so-called functional symptoms. Secondly, I should like to emphasize the continuity of psychiatric pictures which, to the internist or surgeon, may appear disjointed and diffuse.

I have further limited the discussion to psychic disturbances arising from instinctual conflicts, because of the frequency with which such disturbances express themselves in gastrointestinal disorders. To treat the presenting clinical disorder, the underlying instinctual situation must be dealt with. The cases are from routine clinic and hospital practice, and those with a few contacts have been preferred, to avoid detail that would be confusing and only of interest to the specialist. Of the four cases, the first two deal with situations arising at sexual maturity; the last two are related to problems growing out of the decline of reproductory life.

Case I. A Porto Rican girl of nineteen was admitted to the hospital for an emotional reaction following extraction under gas oxygen. During the first two days she showed a general trembling, as though in a constant state of fear. She wept frequently and was uncommunicative except to complain of severe pain in the right shoulder and epigastrium. A surgeon who saw the case emphasized the similarity existing between the epigastric and acromial tenderness. The latter could not be explained as a referred pain in the ordinary sense, and there was no history of recent accident. She vomited on several occasions.

The psychiatrist was impressed with the exaggerated feeling associated with the two foci of pain, for which he was led at once to suspect an emotional over-determination. The patient's distraught mental condition made it impossible to follow this further at the time beyond hearing her own explanation for the pain in her shoulderwhich was that the dentist had given her an injection there prior to the operation. She had explained to him that due to injury to this arm at seven years of age, she had been warned never to have any unnecessary manipulation at this site, and especially to avoid receiving injections there. For this very reason a series of injections which she had had some years later had been given into a leg. In spite of her pleadings and protestations, however, he had insisted and gone ahead.

The patient's parents were dead, and she had come two years before to the United States to live with an aunt and uncle. The uncle, on a visit to the hospital, volunteered information which served to make the real cause for her hysterical outbreak clear. He was much concerned because the patient, who was a virgin, had been pursued over a period of months by a distant relative with, he was sure, no good intentions. Although he had forbidden her to communicate with this man, he was in constant fear that she would overstep.

An inquiry into her attitude toward her uncle and the man described by him was undertaken. Her account of the situation was that she had met the man at her uncle's home while he was on leave from the army of some South American country. The man was married but separated from his wife. During the month he spent in New York he came to the house every day, but the uncle did not suspect the love affair which was rapidly progressing. He returned to South America and they corresponded regularly. One of the letters fell into the hands of the uncle, and on the man's return several months later, he was forbidden the freedom of the house, and she was warned against seeing him. They met and corresponded secretly for two weeks, at which time they announced their intention to marry in a stormy session at her uncle's home. The uncle then became so upset and talked with her so strenuously against this man that she decided to be ruled by him

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and to give up her admirer. This she had done two months before admission. The man, however, attempted continually to get in touch with her, and patrolled the front of her house, where he could be seen from the window. She claimed to have lost all affection for him, but it was evident, through her conversation that he was still very much on her mind and related to a general jumpiness which she complained of and exhibited.

Her abdominal symptoms appeared first during a menstrual period the year before at about the time she met this man, and recurred monthly. Six months later she began to have cramp-like, epigastric pain which occurred with, and also independent of periods. During her hospital residence this pain, which had persisted for six days, disappeared with the appearance of her

menstruction

The patient's mental picture cleared rapidly, and her physical symptoms decreased proportionally. Routine stool examinations revealed hook-worm, for which she was treated. This, though undoubtedly a general reducing agent and a factor in her gastro intestinal complaints, could not account for all the abdominal symptoms.

The basis of her hysteria lay in the existing emotional conflict. It is of interest that the conversion symptoms started as menstrual manifestations, later becoming independent of them Gastrointestinal symptoms of the character complained of, frequently appear in the face of strong instinctual temptation On careful and painstaking analysis, they are found to represent a defense against, and a disguised fulfillment of, censored trends within the personality With the patient's Spanish background, to be compromised would invite far-reaching consequences The role of the extraction in precipitating the hysterical episode would be understandable in its deeper emotional significance as representing a violation. both desired and feared To further support this surmise is the curious acromial pain, a twin in its hysterical conversion characteristics to her epigastric pain. This area was, as described by a medical student, an "achilles heel" a tabooed and vulnerable spot, and as such readily utilizable in hysterical fashion to dramatize her phantasies

Shortly after discharge from the hospital, all the patient's symptoms cleared up, only to reappear in the form of intermittent feelings of constriction in, and pain about the chest She spoke of this in the same way in which her earlier complaints had been referred to, and there was a noticeable exacerbation of pain whenever her former sweetheart was mentioned Further resolu-

tion of this affair through psychotherapy was indicated In such a case, intensive and prolonged therapy would be required to resolve not only the immediate situation, but the deeper infantile neurosis serving as its nucleus

Symptoms of abdominal prin, nausea, and coniting which in the last case one can only suspect are related to a conflict over pregnancy, are so with reasonable certainty in the next case to be cited. To demonstrate this definitely would entral months of careful analysis, and I have not opportunity to go into all the evidence at this time. If, however, the physician is to be prepared to deal with a constellation of neurotic symptoms, he must learn to recognize the gross or surface pathology and understand it in terms of histo- or depth psychopathology which he has become familiar with in other cases studied exhaustively.

Case II A young married woman of twenty-six came to the chinic complaning of right lower quadrant and para umbilical pain of nune months duration with discomfort following eating For six months she had suffered from a choking sensation after meals. Vomiting occurred on the average of three times a week. It relieved the choking feeling and also the abdominal pain which was cramp-like. The latter was also relieved by enema.

As in the preceding case, the physican would be tempted to attribute all the patient's gastrointestinal symptoms to hookworm, in the present instance, a history of an appendectomy four years before, with x-ray studies showing some limitation of mobility of the cecum, might blind one to something even more important in the background. The surgeon who was called in consultation lesitated to operate in view of the very meager physical findings, and furthermore, suspected a neurotic etiology. He recommended psychiatric observation and treatment as a preliminary, with operation only as a last resort

The patient, during the first interview, showed a picture of neurosis, and spontaneously frunched into a discussion of her personal problems when given the opportunity. She and her husband were very much in love when they married three years before and had continued to be so. There had been some difficulty in the initial adjustment to the physical act, but this had improved until during the period of her recent illness, when relations had become entirely unsatisfactory and were followed by nervousness and fatigue.

The pain that she complained of, as well as her other symptoms, had been present

during a pregnancy which had ended in a miscarriage at three months. It was then absent for six weeks, and again recurred. The pain was of the same character as that which she had had previous to her appendectomy four years before. Prior to this operation, she had suffered from three or four attacks a year of what was considered appendicitis. The question must be raised whether the first operation may not have been neurotically determined.

The patient's husband gave additional data of importance. Due to economic considerations, they had put off having a child, although the wife had expressed a desire for one. A year before the psychiatric consultation they had decided, in spite of the uncertain outlook, to go ahead. It was with this decision, and with exposure to pregnancy that her symptoms started. The husband believed that this ante-dated actual conception by a month or more. A period of improvement during earlier clinic visits he attributed to daily douches which had been prescribed during this time and later discontinued.

The patient appeared for her second interview with a history of marked improvement of symptoms until that morning when she had had a return on awakening. She further stated that the night before she had had unusually satisfactory coitus, with orgasm, and felt this a proof that sexual maladjustment had nothing to do with her symptoms. A fact that is often lost sight of is that not only does fear of pregnancy interfere with sexual gratification, but that a successful performance may greatly enhance the anxiety and neurosis even though precautions have been taken. This is related to a common belief that conception takes place with orgasm. Though she still expressed a conscious desire to have a child, and sought advice as to whether this would be advisable, a definite conflict on this score was evident.

As indicated, conflict over whether or not to have a child and fears of pregnancy and labor may operate whether pregnancy is a fact or not. Nausea and vomiting of pregnancy, and nausea and vomiting on a purely functional basis may express the same conflict. The gastrointestinal tract, when it becomes the seat of the conflict, acts in a substitute role for the genital tract. In the case presented, psychotherapy directed toward the removal of this conflict should be instituted before another pregnancy, otherwise danger of further miscarriage or increase in the psychic disturbance is to be expected.

The psychiatrist is often asked, as in the previous case, whether he can throw more

light on indications and contraindications for operation when a neurotic element is obvious or suspected. In learning to trust the psychiatrist's judgment, and to weigh it with his own or with those of other contributing specialists, it is important for the surgeon to realize that several apparently unrelated conditions may present a complete unity to the psychiatrist, and that psychic manifestations that may appear secondary to somatic symptoms may represent two different expressions of the same emotional disorder. Additional factors discovered and used by the psychiatrist if he is given even a short period to work with the case may sufficiently change the picture to convince even the skeptical.

Such a case, where the psychiatrist's recommendation was set aside for what appeared to be more important evidence, when a few days delay would not have entailed undue risk and would have avoided serious postoperative complications, is the following:

Case III. A merchant of forty-six entered the hospital suffering from gastrointestinal symptoms of three months duration. During this time he reported feelings of fullness in the epigastrium with occasional slight crampy pain. During this same period he had experienced dizzy spells while at work. Ten days before admission he had quite suddenly been seized with severe epigastric pain, which had remained constant with intermittent crampy increases. In the hospital the patient remained unrelieved by belladonna. Ulcer or neoplasm was suspected. Because the patient had obvious mental trends, the psychiatrist was asked to see him.

Examination showed a small, grey man, appearing older than his chronological age. He was in a state of constant agitation with a generalized tremor and depression. Mental suffering was apparent from his face, manner, and speech. His intestinal complaints were inability to eat, failure of his food to digest, meager, practically negligible evacuations; the marked emotional over-determination of his epigastric pain presented a picture frequently seen in depressions showing somatic symptoms, especially involutional melancholia. The entire symptomatology could be entirely explained on this basis. He gave a further history of having been melancholy and nervous for four years with frequent headaches, and in the last month, he stated that he had wept frequently and felt confused and hopeless. He talked continually of his son as his only interest in life.

The clinical picture was so clear-cut that the psychiatrist urged a period of observation and delay of exploration which was being seriously considered. Preliminary x-ray studies had been negative, and in view of lack of other positive findings, surgical opinion was to delay operation, when further x-rays showed some dilation of the second portion of the duodenum. A decision to go ahead immediately with the operation led to exploration with entirely negative findings. The patient developed a postoperative lung complication, with high fever and transient delusions centering about the recent incision.

After several weeks of convalescence, as his general condition began to improve, a second psychiatric consultation was requested. Additional information about the poor state of the patient's business with numerous reverses in the last few years, was thought of as a probable cause for his depression. The social service had also been told by the patient's wife of a very disturbing situation relative to their oldest child, a daughter, who for two years had shown wayward tendencies which were cause for real alarm.

When seen the second time six weeks after the first interview, the patient presented practically the same picture as on the initial visit. He was less depressed, but more agitated. A constant general trembling was accentuated when he talked about his condition. Without mentioning the information furnished by his wife, he was asked to tell what was actually worrying him. At first he demurred, saying that he couldn't discuss it. When pressed, his tremor became so violent that it resembled an ague, reaching such proportions that it nearly threw him from his seat. Only when removed to a quiet room and further encouraged did the emotional discharge take place with a burst of weeping, and in a few sentences he traced his entire emotional life with its present catastrophe.

He stated that he had been born in Europe, where both his parents died when he was a boy, depriving him early of their love and care. He had come to this country at eighteen, and shortly afterwards married his present wife. They had never been congenial, and when a daughter was born he placed all his love and affection on her. In his own words, "I watched her every step until she was five." He continued the closest association with her throughout childhood. Two years before she had begun to assert her independence by staying away from home for weeks at a time and associating with a crowd of which he entirely disapproved but could do nothing to prevent because of her threat to leave for good. With this his whole world crashed about him. He could think of nothing else but her disaffection and was unable to concentrate or to apply himself to business which needed his best efforts during the business slump. He had been unable for some time to discuss the situation even with his wife, because she became so upset, and he could not talk to anyone outside,

With the emotional catharsis afforded by the interview, his picture cleared considerably. He went away for several weeks convalescent care and when he returned, his epigastric pain had gone. Mentally he appeared fairly natural. When business was touched upon, he made a wry face saying that it was worse than ever but laughing in a philosophical if ironical way. When the matter of his daughter was mentioned, how-

ever, some of the former tenseness reappeared.

On a second visit three weeks later, his mental condition still showed the improvement, but he had begun to have a return of his epigastric pain. In such a case even though little can be done to modify the actual external problem, it is important to encourage discussion and ventilation of the painful affect to prevent reaccumulation of tension and its somatic reverberations.

Diminuation of sexual power in both sexes is often accompanied by emotional conflict expressed through the gastrointestinal tract. Whatever the physiological changes attendant on the climacterium, resolution of this conflict through psychotherapy may markedly influence the symp-

tomatology.

Case IV. A postal clerk of forty-nine was admitted to the medical ward for abdominal distress and pain of eighteen months duration. This pain usually originated at the umbilicus, at times radiating around and up between the scapulae, at others to the back and toward the testes. The only positive finding was some irritability and spacity of the colon by x-ray. A diagnosis of gastric neurosis was made, and the case turned over to the psychiatrist for treatment.

The patient had varied and numerous complaints, feared he had cancer and desired an operation to fix him up. The clinical picture was that of hypochondriasis. With each negative examination, he had been reassured, although disappointed that nothing wrong had been found. Among other complaints was that his penis was bent during erection. He was still smarting at having been told three years before at a urological clinic that nothing was wrong and to forget it. There was something wrong, but the urologist had missed the point; the patient was covertly complaining of his lack of sexual power,

This waning had occurred four years before his hospitalization, coincident with the onset of his wife's menopause, which interferred with his own performance. He attributed the impairment to the bent penis which was really the result.

Still driven to bemoan his loss, the true nature of which his ego would not let him admit, the gastrointestinal tract became involved as the seat of complaints and hoped for restitution. This explains why he was both reassured and disappointed at nega-

tive findings.

After discharge he was followed in the outpatient department for three months, returning twelve times. A premature attempt to give him insight into the real cause of his complaints led to an acute increase of all symptoms. Gradually, however, he was able to accept the situation sufficiently to cut down his anxiety and enable him to renew a more satisfactory sexual life with his wife.

Although he stated that the bend in his penis persisted, his other symptoms gradually faded into the background, and he left the clinic feeling it no longer necessary to continue treatment. Follow-up six months later brought back a report of his having continued to hold this improvement.

In this communication I have endeavored to illustrate psychic disturbances resulting in gastrointestinal symptomatology which have their origin in instinctual conflicts. In several of the cases coincident deviations in the genital system show a physiological counterpart of what would generally be considered complaints of a purely functional nature. The clinical material is not presented as proof, but merely suggestive of a means of approach to the diagnosis and treatment of certain gastric neuroses which, without understanding obtained through intensive and prolonged psychoanalytic investigation of similar situations, would remain obscure.

129 EAST 69TH ST.

INTERNATIONAL CARDIOLOGICAL MEETING

Various professional groups of Royat (Auvergne), namely the Medical Society, the Mineral Water Company, the Publicity Commission, the Hotel Syndicate and the Municipalities have decided to organize International Cardiological Meetings Royat at regular intervals.

One question will be discussed at each meeting from the physiological, pathological

and therapeutic point of view.

This question chosen from among the problems of present day science will be discussed by lecturers whose personal research, competence and recognized authority are sure guarantees of the value of these sessions.

The reports will be distributed in the form of brochures, each of which will present a summary of latest developments in the question studied and in all, will constitute a cardiovascular library of great value to the practitioner. They will include unpublished documents, valuable diagnoses, and therapeutic indications to be used in daily practice.

The first meeting will be held in Royat during Whit-sun tide May 31-June 1, 1936. The question to be discussed will be "Vascular Spasm." Professor Vaquez will preside. Reports will be given by Professors C. Heymans (Ghent) and Lucien Brouha (Liege). "Vascular Tonus" Professor Riser (Toulouse): "Vascular Spasm and the Brain." Professors Leriche and Fontaine (Strasbourg): "Vascular Spasm and the Limbs." Professors Maranon and Duque (Madrid): "Vascular Spasm in Relation Professor Endocrinology." (Paris): "Treatment of Vascular Spasm."

"BABIES, JUST BABIES"

German mothers, under appeals to increase the population, have responded with a rise of twenty-three per cent in the birth rate. "This is well enough," says a German medical journal, "but the Third Reich needs at least 1,400,000 new babies a year." Which brings to mind a remarkable passage in a new book called "The Crush of Things to Come," by Malthus Wail, which pictures life in Germany in 1970.

"The schools," it runs, "were bursting.

Thousands of teachers were trampled un-

der foot by the mass of children who swarmed over the desks. In the streets of Berlin it was only possible to move slowly and with infinite caution. Little fingers tugged at one's bootlaces, little arms twined about one's legs. When the aged Führer addressed the crowd in the Sportplatz, he had to be hoisted on the shoulders of two Nazis to keep the younger generation from engulfing him. Even so, babies dangled from his lapels, clutched at his ears and tugged at his moustache."

THE PROGNOSIS OF MODERATE DEAFNESS IN YOUTH

Variations with Disease, Management, and Treatment

EDMUND PRINCE FOWLER, M.D., New York City

Since 1922 thousands of audiograms have been accumulated and data which show the trend of hearing over varying periods of time and under varying conditions of disease, management, and treatment.

Deafness is only a symptom but it is usually the chief symptom in car conditions. Its prognosis depends largely upon the specific lesions causing it, but this is true only in so far as such lesions happen to permanently involve the structures vital to good hearing. Even suppurative otitis media with severe complications is not necessarily followed by deafness, and suppurative of the deafness may have a good or a bad prognosis. In cases of long standing, cure may be accompanied not by an improvement in hearing, but by an increase in deafness. Nevertheless much may be learned by studying the average audiogram curves in different disease groups and their variations with time and treatment. The aim of treatment should, of course, be not only to save life and to cure the disease and avoid complications, but to preserve and to improve the hearing. At times unavoidably but often inexcusably the hearing is

neglected.

Medicine and surgery being, because of so many variables, far from exact sciences, one has become accustomed to rely too much upon isolated cures instead of average results to evaluate the effects of treatment. Average results often damp our enthusiasm but really are of far more importance than the individual results.

These are all clinic cases and consequently not quite as favorable subjects for management and treatment as most private patients. The background of inheritance and care and hygiene, and so on is poor compared to the better-to-do. However, clinic cases constitute the bulk of material and the greater problem.

In these cases continuity of intensive treatment was impracticable. It is generally so for obvious reasons, but the usual methods were used, and in all instances supervision was continued over several years with particular attention to general health and head colds and sinus infections.

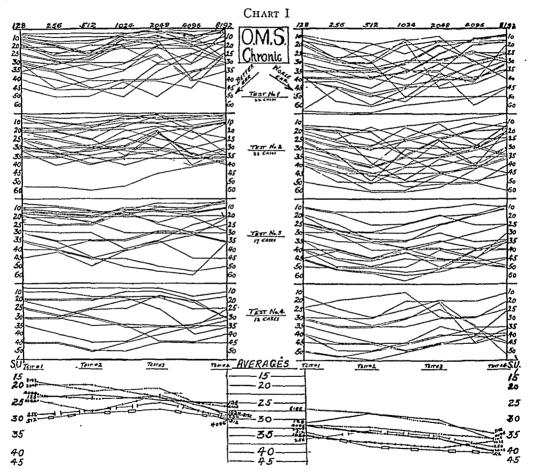
In no instance with cessation of suppuration was there what I consider occlusion of the Eustachian tube. Catheterization was not used in these children. It was not indicated. No nasal packs or sprays were used. They were not indicated. Tonsils and adenoids were removed if there was any suspicion of their having a harmful effect on the ear disease or general health. No sinus operations were done. I have not opened a child's antrum in many years. Too much conservatism may have been shown in these matters. In many children the lack of resistance to head infections persists in spite of all operative procedures, plus vitamins, clothing. hygiene, and other health measures.

It is by no means an unmixed blessing in the very young to remove the tonsils unless they are chronically diseased (not just hypertrophied). These structures, like other lymphoid masses, serve a useful purpose. Their autogenous products are more efficient than any manufactured vaccines. I am of the opinion that unless adenoids (with or without the tonsils) are removed soon after chronicity or recurrence is threatened, and before the child's ninth year, the procedure does not contribute much on the average to immunity from oftiis media.

It is often a nice decision whether one is to do more harm than good in removing tonsils. Some most persistent suppurative ears and severely deafened ears immediately follow tonsil and adenoid operations. More tonsils are removed in clinics than in private practice. This may be advisable but there is no general rule to follow. That indefinable thing called good judgment must ever be the imperfect but best guide.

At this time I shall limit my discussion to four disease groups in the order of their destructive propensities toward ear health and hearing. The worse ear in every case at sometime had harbored chronic, recurrent, healed or past masked suppurative otitis media. The better ears almost without exception also had been the seat of like lesions. The term "past masked" was coined to cover those cases which though giving no history of otitis, showed clinical and otoscopic evidence of otitis media in the past. This fact was covered up (or masked) by time, other diseases,

mastoidectomy. The first, by the absence of typical symptoms and the ages of the patients; the second, by including only those with normal bone conduction; and the third, by placing the mastoid operations in a separate group. All of these will be reported later. These eliminations account for the comparatively small number of cases under each group, plus the tendency of patients to drift away from the clinic, no matter what the results of treat-



or carelessness. The healed cases represent those who gave a definite past history of suppuration. These two groups cover what is usually called (OMCC) otitis media catarrhalis chronica, whatever that means!

. It is practically impossible to select absolutely clear-cut cases because there are always many factors in even the simplest clinical entity, but I have excluded three of the complications which would have greatly confused the picture, namely, otosclerosis, nerve deafness, and

ment may have been.

In order to know what we are talking about it is desirable to qualify the degrees of deafness. My habit is to grade deafness according to Table I.

TABLE I.

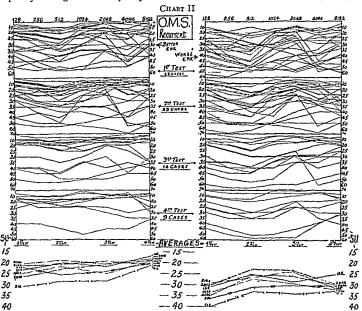
Under 20	S.U. less Slight
20-40	S.U Moderate
	O.O
4061	S.UModerately severe
60-89	S.U Severe*
Over 80	SII Very severe
Ma hanning	for very loud sounds,
No nearing	for very foud sounds,

^{* &}quot;Marked" may be substituted for "severe."

These cases were selected because they were in the moderately deafened group of children who returned for treatment or check-up at least once yearly for several years. The cases present a fair sample. The moderately deafened constitute the largest class of children handicapped by deafness. The hearing charts of the better and worse ears are displayed side by side.

I show audiograms of the ears at yearly intervals, and at the bottom a plot of the frequency averages at each yearly test.*

little with time. The spread of losses, as between frequencies, is greatest at the first test, especially in the better ears. The curves became flatter as time went on. At the second test there is no improvement on the average in either the better or the worse ears. At the third test there is no improvement on the average in the better ears, and a loss on the average in the worse ears. At the fourth test there is a definite loss in both the better and the worse ears. Subsequently seven of these cases improved considerably but the number was too small to warrant plotting.



Summaries of Average Changes Between Tests

Chronic Supparative Otitis Media, 22 Cases, (Chart I). The difference in the level between the better and worse ears is greater than in any of the other three groups. In both the better and the worse ears 8192 is the least depressed tone and 512 the most depressed tone. The curve form changed but

Recurrent Suppurative Otilis Media, 23
Cases, (Chart II). The difference in the level
between the better and worse is less than in
the chronic suppurative ears but more than
in the non-discharging ears. In both the
better and the worse ears, 512 is the most
depressed tone, and 2048 the least depressed.
The curve form changed considerably withtime. In the better and worse ears it became
flatter. At the second test there is a little
improvement in the better, and a marked improvement, on the average, in the worse
ears. At the third test there is little change
in the better ears and slight loss in the worse
ears. At the fourth test the better ears show

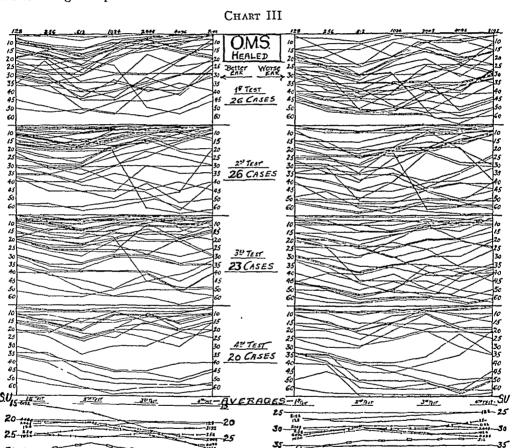
^{*} The audiograms and calculations were done by Miss Marie C. Pless: the graph averages by Dr. J. Aaron Samuelson, both of the New York League for the Hard of Hearing.

marked improvement, the worse ears lost hearing.

Healed Suppurative Otitis Media, 26 Cases, (Chart III). The difference in the level between the better and the worse ears is less than in the suppurative ears, but more than in the past masked ears. In both the better and the worse ears 512 is the most depressed tone. In both the better and the worse ears, 8192 with 128 are the least depressed tones. At the second test there is no change in the better ears. At the second test, there is a slight improvement in the worse

second test there was an improvement in hearing in both the better and worse ears. At the third test the improvement was maintained in both the better and worse ears, although both ears showed a tendency to loss in the higher frequencies.

Chart V shows the averages of the audiograms in each group at yearly intervals. The number of small cross marks on each chart indicates the number of the test. The roman numerals at the ends of each chart also indicate the number of the test.

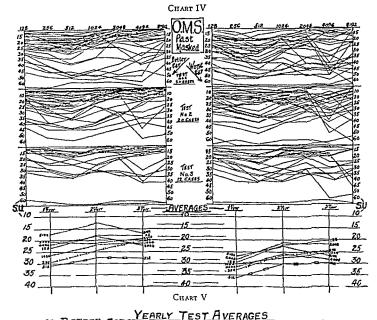


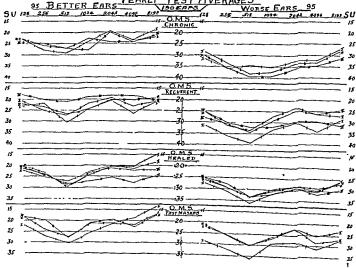
ears. At the third test there is a tendency to go down in the better ears. At the third test there is a tendency to remain stationary in the worse ears. In the fourth test there is a loss in middle and higher frequencies in both the better and worse ears. Otherwise the tendency is to remain stationary in both.

Past Masked Suppurative Otitis Media, 24 Cases, (Chart IV). The difference in the level between the better and the worse ears is less than in any other group. In both the better and the worse ears 512 was the most depressed tones. In the better ears 8192 is the least depressed. In the worse ears 128 and 2048 are the least depressed tones. At the

SUMMARY OF OBSERVATIONS ON THE AVERAGE CHANGES IN THE HEARING FROM YEAR TO YEAR IN FOUR GROUPS OF OTITIS MEDIA (190 EARS).

The better ears are on the average distinctly above the worse ears (5 to 28 db). The difference in levels between the better and worse ears was greatest in OMSC, and diminished on the average in the recurrent and non-discharging groups. The average audiogram curve form, changed but little with time, in the worse ear. In some instances with time the better became the worse and vice versa. Spread of losses as between frequencies was greatest at the first test. In other words, the curves became flatter as time went on, the low tones on the average going up, and the high tones





going down in all the worse ears and markedly in the better healed ears. In all the better and in all the worse ears 512 was the most depressed tone. 512 was most depressed in the recurrent and chronic suppurations. 8192 (with 128 in Hld. & Pst. Mskd. worse ears) was the least depressed tone.

At the second test in all the worse ears except the OMSCh and in the better healed ears there was improvement in the hearing. This can therefore hardly be due entirely to the practice factor. Most of the ears with the exception of the Chronic Suppurative Ears had been tested before coming to the clinic. I have noted that the lower the graph the less the practice factor enters. It may be because on the average these deafer ears are not so much disturbed at the first test by outside masking sounds, as are the better hearing ears.

In the better cars on the average the Recurrent and Past Masked eventually improved. In the better ears on the average the healed and the chronic show loss. In the chronic

better and worse ears, there was a definite tendency downward. In the recurrent better ears there was an improvement, but in the worse ears after the gain at second test, a loss. In the healed better ears there was a definite tendency downward. In the healed worse ears there was a definite tendency (after a primary improvement) to remain stationary. In all Past Masked ears there was a definite tendency to improve and retain this improvement. The better healed ears show the greatest losses with time.

Whereas these charts show the average tendencies, there were many variations, and on the master charts where each case is numbered, many cases show marked improvement although the average shows loss of hearing.

Is it possible to single out a few factors which appear to make for a favorable prognosis? I believe it is. Of primary importance is the early detection of ear disease. In the chronic and recurrent groups loss in hearing was proportional

TABLE II. SUMMARY OF CLINICAL HISTORIES (AGES 5 to 18)

Age limits No. and Av. Age of at First Cases Test	Positive Fam. Hist. of Deafness	T and A Ops.	Diag. Better Ears	Diag, Worse Ears	Subsequent History
22 (6 to 16)	7	16 Out 1 Hyp. 5 Norm.	11 OMSC 7 Rec. 1 Poly. 8 Hld.	OMSCh	With the possible exception of 3, none appeared healed permanently. 50 per cent continued chronic. 7 at the 5th and 6th tests showed better hearing. Others gradually lost hearing.
23 (5 to 18) 10½	10	17 Out 3 Hyp. 3 Norm.	All Rec. but one	OMSRec	In 75 per cent the frequency of recurrence declined. Better ears gained. Worse ears gained at first, then lost.
26 (6 to 18) 9½	3	22 Out 1 Hyp. 3 Norm.	All Hld. or Pst. Mskd.	OMSHId	None developed Ac. Otitis. One Ch. Otitis after pneumonia. All picked up in school tests. Better and worse ears lost in middle and higher frequencies.
24 (6 to 16)	12	20 Out 1 Hyp. 3 Norm.	All Pst, Mskd. but one	OMS- Pst. Mskd.	None developed Ac. Otitis. All picked up in school tests. At 2nd test both better and worse ears gained and maintained this gain over later tests.

With the exception of the Healed Group, the Positive Family Histories increased indirectly with definite histories of previous chronicity. This would imply that in the Healed Group at least, there was little hereditary influence.

On the average the younger the patient when first seen and the more faithful in treatment, the less the recurrences and exacerbations, and the less permanent or progressive the losses in hearing.

to the chronicity and severity of the suppuration; fifty per cent did not heal even temporarily under treatment. These were the cars of largest duration. There were no reliable histories of the severity in the healed ears. The freedom from acute otitis in the healed and past masked ears is significant. Management and treatment did help these cases.

Pain and distress compel attention. Slight and moderate deafness does not. Pain or distress occurs almost wholly in acute otitis. Either is usually transient, soon forgotten, and of less importance from the prognostic viewpoint than deafness, but slight deafness being usually unsensed, they loom large as danger signals.

Be on the lookout for even slight deafness. This is the danger signal so constantly present and so constantly ignored. It is a warning of danger ahead and of danger behind. Repeated, it is a sign of impending progressive deafness, no matter how slight its beginning. It is the healed ear which more often is allowed to drift. Even the slightly deafened healed ear

often goes on to severe and progressive

I sometimes think that infants should be conditioned to a standard sound of say 10 or 15 db above minimum audibility, preferably a low tone (about 256). They certainly are automatically and easily conditioned to sounds they learn associate with feeding preparations. Why not have the mother or nurse use an acumeter or some such sound or a faint whisper at twenty feet, at first before each feeding, and after a month or so, often enough to maintain the association, and to make it possible to detect any change in the baby's hearing acuity. At twenty feet the above sounds reach the ear at about 15 db above average normal minimum audibility in a fairly quiet room. other sound near threshold of normal audibility may be used. Why not try it? It is not so difficult, or so foolish as it seems at first thought.

These graphs indicate that the continuation or recurrence of suppuration is definitely injurious in spite of the fact that while the ear is discharging the hearing may appear better. Many ears healed long ago (whether diagnosed or not) have had repeated inflammatory episodes, and show little further improvement after a primary response to treatment.

The most surprising losses are in the tones above 512 in the healed ears. This is no doubt partly due to the fact that those who returned for the third and fourth tests were mainly those who noted increasing deafness. The others had no urge to return. This urge factor is operative only in ears with compelling symptoms. The healed ears are in reality subject to recurrent inflammations, coincident with and often caused by nose and sinus infections and exacerbations. These influences may be traced throughout all progressive deafness due to otitis media in any form, they were so treated.

In one sense all these children have been neglected children. Hardly without exception they were not brought to the clinic until forced by excessive symptoms, or school hearing surveys.

I am sure that had they been seen earlier the story would have been quite different. It has been so in most instances where early examination and proper care was instituted.

By proper care I mean not only the supervision of recovery from pain and discharging ears, but real treatment and management during and after the pain and inflammation have ceased. Also instructions in the avoidance of recurrences.

Summary

I have shown charts which tell the story of the average child with suppurative ear disease (apparent or masked), and particularly the story of potential and increasing deatness with time, and lack of early and proper treatment. The charts show that this clinic treatment and management is often not satisfactory. The results on the average are not flattering and yet the individual audiograms show that much can be done to prevent deafness. The prognosis on the average is favorable with youth and early treatment. The prognosis is not favorable even in children unless there is early care and treatment.

140 EAST 54TH ST.

A HOSPITAL EPIDEMIC OF DIPHTHERIA

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Epidemiologist, Division of Communicable Diseases, New York State Department of Health

In December 1933 and January 1934, a hospital in a New York State city experienced an epidemic of diphtheria which presented a number of features of special interest. The institution concerned was a 125-bed hospital maintaining an outpatient department and a nurses' training school. The hospital had no pediatric service nor any contagious disease service, and was devoted chiefly to the care of surgical, obstetrical, and emergency cases.

Chronology and General Characteristics of Epidemic

The first known case of diphtheria occurred in a probationary nurse with onset on December 12, 1933. During the ensuing epidemic, which covered a period of about one month, there occurred twenty cases diagnosed as clinical diphtheria. Two of these cases were among patients, and eighteen of them were among the 162 individuals constituting the hospital personnel; fourteen of the eighteen patients were graduate or student nurses. The twenty cases are presented in three-day intervals by date of onset in Table I. During the same period there occurred only four other diphtheria cases outside of the hospital in the city, with a population of 125,000, two of which cases were apparently secondary to the institutional outbreak There were no deaths among the twenty positively diagnosed cases

The control of the epidemic was in charge of the City Department of Health under whose supervision progressively more drastic restrictions were put into effect by the hospital authorities, culminating in the complete evacuation of the hospital on the twenty-fourth day after onset of the first case.

The Division of Communicable Diseases of the New York State Department of Health conducted an intensive epidemiological study of the outbreak. This investigation failed to reveal the exact

method of introduction of the disease into the hospital. Food, however, was quite conclusively eliminated as the mode of transmission. The outbreak was not particularly explosive in nature; there were no significant differences in case and carrier incidence between those consuming large and small amounts of milk or ice cream; the hospital milk and ice cream were pasteurized supplies or made from pasteurized products, and were purchased from concerns supplying a large territory in which there occurred no other outbreaks of diphtheria.

After gaining entrance to the hospital, the infection was probably disseminated solely by personal contact. With the exception of the first two cases, each case and carrier gave a history of prior exposure to a previously recognized hospital case or carrier. Dissemination through personal contact was apparently facilitated by failure of several of the patients, including the first individual attacked, to go off duty promptly after the development of symptoms; by crowded conditions in the student nurses' dormitory; and perhaps by lack of isolation facilities in the hospital and defective technic in the mode of isolation improvised previous to the closing of the hospital.

Clinical Findings: Cases and Carriers

Considering the clinical aspects of the outbreak, there were a sufficient number of frank, typical cases of diphtheria to establish without question the nature of

TABLE I.—CASES BY DATE OF ONSET

3 day interval	Number of
ending	cases
Dec. 14	3
" 17	5
" 20	2
" 20 " 23	1
" 26 " 29	2
	3
Jan. 1	1
**	2
<u>"</u> 7	0
" 10	1

Read at the Annual Meeting of the Medical Society of the State of New York, Albany, May 14, 1935 the disease. However, all gradations of illness were encountered so that there were several "border-line" cases in which it was difficult to determine whether the individual concerned should be classed as a case or as a carrier. Attending physicians were interviewed concerning the diagnostic criteria of each case or suspected case, and the twenty individuals finally classified as cases were all considered by the physicians who cared for them to have had clinical attacks of diphtheria. With two exceptions, each patient had all of the following signs or symptoms: fever, sore throat, membranous exudate in the nose or throat, and nose or throat cultures positive for diphtheria bacilli. One of the two exceptions was a nurse who claimed no constitutional symptoms and was isolated originally as a carrier, but who subsequently developed a typical nasal diphtheritic membrane. The other exception was a nurse who developed typical diphtheria but from whom no positive cultures were obtained. After three initial negative cultures, no cultures were taken from this patient from the fifth to the seventeenth day of her illness. All twenty patients were treated therapeutically with antitoxin.

None of the forty-six individuals classified as carriers had symptoms which in themselves, justified a clinical diagnosis of diphtheria, and most of the carriers claimed to have had no symptoms whatever. Thirteen of the carriers, however, gave histories of attacks of sore throat of varying severity during the epidemic. In eleven of these thirteen carriers, as shown in Table II, the sore throat occurred within seventy-two hours of the appearance of the first positive culture, although these particular cultures covered a period of twenty-four days, and most of the individuals cultured had had from one to

Table II.—Association of Sore Throat Attacks Not Diagnosed Diphtheria With Date of First Positive Culture

Individual					_		Dec	em	ber		-		_				-	_		J	anu	ary		-44-	
Number	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	T	2	3	4	5	6	7	8
23	0																			×					_
22																									
24																									_
29				0	•																				
Z8				a		•																			_
40			0	[0																			
37	Γ		0				٥	0	а																
53			Q	0	٥	a				a	•														
43						0						0													
56				a		0				0	0	0		0		0									
59				0	Ī	Γ		Γ				0		0			0								
65				0		0						0					Γ		0		=				
66				0				0				0		0		0			0				=		0

O Negative culture

[☐] First positive culture

I Onset of sore throat

six negative cultures previous to the joint appearance of the sore throat and the first positive culture. Virulence tests on cultures from thirty of the carriers were positive in twenty-eight instances.

The simultaneous occurrence of a positive culture and a sore throat suggests that the cause of the apparently nonspecific sore throat experienced by some of those designated as "carriers," may have been the diphtheria bacillus. Such an hypothesis does not seem illogical since it is well-known that individuals may be encountered with all gradations of antibody response to the diphtheria bacillus, and in addition, that exposed persons may receive varying dosages of such organisms. It is to be expected that all degrees of response may occur among infected persons, from the development of frank typical cases at one extreme, to carriers with apparently no subjective symptoms or physical signs at the other. Between these two extremes it seems inevitable that instances may occur in which a transitory illness is produced which does not proceed to a stage sufficiently typical for clinical recognition.

As stated above, there were no deaths during the outbreak among persons reported as cases of diphtheria. A post-operative gynecological patient, Patient A, died on December 18 of quinsy and cellulitis of the neck four days after being discharged from the hospital. A throat culture, taken with difficulty from this patient just before death, revealed no diphtheria bacilli. This single case was not regarded as particularly suspicious at the time of its occurrence. However, it is of interest to note that one of the most severe of the twenty diphtheria cases occurred at the same time in another hos-

TABLE III.—NEGATIVE SCHICK TESTS WITH DATE AND PRESENCE OF ABSENCE OF WRITTEN RECORD OF LAST TEST

Individual number	Date test performed	Confirmed by written record
13	1925	Yes
	1927	No
6 15	1928	No
4	1928	Yes
19 2 10	1932	Yes
2	1933	Yes
10	1933	Yes
11	1933	Yes
12	1933	No
14	1933*	No

^{*} Four days after prophylactic antitaxin.

pital patient, Patient B. This case was complicated by a severe quinsy similar to that in Patient A. Patient B was admitted on December 6, two days after Patient A; was operated upon December 6, one day after Patient A; and was discharged on December 15, again one day after Patient A. Both patients developed first symptoms on day of discharge from the hospital.

Incidence in Relation to Immunity Status

One of the features of the outbreak of particular interest was the actual occurrence of an epidemic of diphtheria among a group of adults. The youngest case in the series was that of an individual 18 years of age, with a range of ages for those attacked extending to 45 years.

Inquiries concerning the last Schick test prior to onset of illness revealed other unusual findings. Ten of the twenty patients claimed their Schick tests had previously been negative. Among the other ten, four had had positive tests, and six had not been tested. Thus, ten of the fourteen individuals with a known previous Schick test claimed that the reaction had been negative. Five of the ten individuals claiming negative Schick tests gave histories of having been actively immunized against diphtheria previous to the negative test, three with toxin-antitoxin and two with unprecipitated toxoid.

In an attempt to verify the statements regarding negative Schick tests, physicians known to have performed these tests were interviewed, the student nurses' records in the training school office were examined, and each patient was questioned directly concerning the exact manner in which the test was performed and the reaction which followed. The fact that nine of these ten individuals were nurses, and the tenth an intern, seems to justify placing greater reliance than usual upon such direct questioning. In addition, past immunization records in the nurses' training school office provided an opportunity for verifying the statements made by many of those questioned.

The Schick tests of four individuals were performed more than five years previously, as shown in Table III. Written records were found confirming the

negative readings in two of these tests but because of the lapse of time, the four patients themselves were unable to recall the technic in any detail. The Schick tests of the other six individuals were performed either in the year of the epidemic or the year before. One of these, however, had the test performed only four days after the administration of a prophylactic injection of diphtheria antitoxin so that its interpretation is difficult. In four of the other five cases the negative tests were confirmed by written records, and in all five instances sufficient information was obtained from the individuals themselves and the physicians performing the tests to prove beyond reasonable doubt that the reactions were actually negative. Thus, the statement that the last previous Schick test was negative was apparently confirmed in at least seven of the ten instances in which this claim was made. As to previous active immunization,

ten of the twenty individuals developing diphtheria had received injections of toxin-antitoxin or toxoid prior to onset of illness. Three of these were probationary nurses, one of whom had received only one inoculation of toxoid less than one month previously and the other two had received their second inoculations of toxoid within two days of onset. In this connection it should be stated that the hospital training school had an established program of diphtheria immunization, which included repeating the Schick test on second and third year nurses with additional inoculations if the tests proved This annual program positive. usually not put into effect until about two months after the beginning of the fall term, however, and the second series of inoculations in 1933 had not been completed when the epidemic began.

Passive immunization with 1500 units of antitoxin was widely practiced during the outbreak, a total of eighty-six individuals being so inoculated. Four developed clinical diphtheria subsequent to passive immunization. The intervals in these four cases between the injection of the serum and the onset of symptoms were eight, ten, twelve, and fifteen days respectively; thus, the shortest interval was eight days, and the longest, fifteen days. These intervals apparently were unusually short. The Medical Research

Council, in Chapter X of its 1923 monograph on diphtheria, reviews much of the evidence on this point. In this monograph, after it is shown that, in most instances, cases subsequent to passive immunization occur either within the first forty-eight hours following the immunization, or else several weeks later, the following conclusion is drawn:

No doubt the degree of protection depends upon the degree of exposure, and in any case it is ineffective if the subject is already in the incubation stage of the disease or after a period of some four weeks.

Other Foci of Diphtheria Associated With the Epidemic

Coincident with the epidemic, there occurred outside the institution at least three series of diphtheria cases with definite or suspected association with the hospital outbreak. The three series included a total of eleven cases of diphtheria.

One of these series deserves special mention. Two student nurses, M.K. and D.C., visited D.C's home in a nearby village on the evening of December 14. Neither of these two nurses developed diphtheria, but M.K. was found to be a carrier when first cultured December 17, three days after her visit to the home of D.C. At the time of this visit, the only member of D.C's family at home was her mother, who kissed both girls when they left to return to the hospital. Two days after this visit, on December 16, D.C's mother developed symptoms of what later proved to be diphtheria. On the same day, two groups of relatives arrived to spend the night with D.C's mother, two adult guests from a village in the northern part of the State, and two children from a nearby city. Both of the visiting children and one of the visiting adults subsequently developed diphtheria, which in turn was further transmitted to another child.

Summary

An outbreak of twenty cases of diphtheria among adults occurred in an upstate New York hospital, Eighteen of the twenty cases were among the hospital personnel, and fourteen of these eighteen were among nurses. None of the twenty cases terminated fatally.

The disease was apparently introduced

by a missed case or carrier, and dissemi-

nated through personal contact.

Among the forty-six carriers discovered, there were thirteen who gave histories of a sore throat at the time of the epidemic, and in eleven of these thirteen carriers the onset of the sore throat occurred at approximately the same time as the appearance of the first positive culture, suggesting an etiological relationship.

In ten of the fourteen cases in which there was a history of a previous Schick test, it was claimed the test had been negative, and investigation gave convincing verification of this statement in seven

of these ten instances.

Four of the individuals developing diphtheria had been passively immunized with diphtheria antitoxin from eight to fifteen days prior to onset. Ten of the twenty patients had previously received injections of toxoid or toxin-antitoxin. Three of these individuals, however, had received the injections within the month prior to onset of illness.

Three foci of diphtheria comprising eleven cases were discovered outside of the hospital, each one apparently originating from the institutional outbreak.

The occurrence of such an epidemic among adults, particularly among members of a group with a high percentage giving a history of active or recent passive immunization and negative Schick tests, is rare, and suggests that either a mixed infection was present or that a strain of diphtheria bacilli having unusual characteristics was responsible for the outbreak.

268 Guy Park Ave.

VACATION AND EDUCATION ROLLED INTO ONE

In a few weeks, on May 16, to be exact, the "European Assemblies" of the Interstate Postgraduate Medical Association of North America, made up of about 125 American physicians, will sail on the Cunard White Star liner Georgic for a trip of postgraduate work and sightseeing in some of the leading cities and medical centers of Europe. Before they return on July 9, on the Manhattan of the United States lines, they will visit Dublin, Belfast, Glasgow, Edinburgh, London, The Hague, Amsterdam, Frankfort, Berlin, Vienna, Zurich, Lucerne, Interlaken, Berne, and Paris. In these cities they will attend clinics covering all branches of medical science and each

physician may arrange in advance to attend the clinics of most interest to him. Many of the doctors' wives will accompany the party, and many sightseeing trips are provided. Those who wish may go earlier and join the tour over there, or may linger on and have an independent trip after the main party have sailed for home. The cost of the trip is \$1,175 in cabin accommodations and \$1,075 in tourist accommodations. Passports and visas are extra.

Information can be had from Dr. W. B. Peck, Managing-Director, Freeport, Illinois, or Dr. C. L. Babcock, Manager Travel Department, American Express Company,

65 Broadway, New York, N. Y.

TANGLED IN THE RIDDLE OF SEX

A very large part (probably eighty-five per cent or more) of the public above the age of eighteen is more or less tangled in the riddle of sex, says the Journal of the Indiana State Medical Association. For example, there are the thousands of couples that are unhappily married, and the basis of the unhappiness frequently lies in sexual incompatibilities. There are thousands of others who are not married but who would like above everything else to be married. There are countless numbers of homes in which the children are in jeopardy because the father and the mother are quarrelling over something which is directly or indirectly due to sexual maladjustments. There is a great amount of venereal disease. It is said that there are probably half as many abortions as there are births and that men and women are so pressed with the need of

avoiding conception that the appearance of the menses is coming to have the significance of a national holiday. Parents without number are worried about the sexual behavior of their sons and daughters. The solution of these problems is not entirely in the hands of the medical profession, of course, but the public has a right to look to the physician for leadership in these matters. No other person in the community has the necessary understanding of anatomy, physiology and hygiene relative to this subject. No one else has entre to family life. No one else has the opportunity for service which equals that of the physician. This is our job, and it is an important job. If we do not accept it, we may expect to see ourselves supplanted by someone else who will attempt, at least a solution, and more than likely make a mess of it.

LIPOIDOSIS CUTIS ET MUCOSAE

RALPH N TRIPP, MD, New York City

The condition we are describing in this paper is one allied with the vanthomas and necrobiosis lipoidica diabeticorum As in the latter, the name was given this condition and reported in the German Archives of Dermatology by Urbach 1 On account of the definite clinical picture and the fact that there was no diabetes in any of the cases described I feel we are dealing with a distinct clinical entity

Wiethe² in 1924 described a disease characterized by changes in the skin and mucous membrane Almost from birth hoarseness was noticed followed by stenosis of the larynx, occasionally necessitating a tracheotomy Wiethe³ again in 1926 described the disease He considered the diseased process to be due to local deposits of hyalin In one of our biopsies the report read, "Suggestive of cartilage but without its staining reaction"

Urbach in 1929 described two cases in sisters with lesions almost identical. He concluded the cases to be a Naevogenic process based upon a generalized and localized disturbance of lipoid metabolism probably diabetic in nature. The deposits were found to be lipoids of the acctone soluble phosphatic group, combined with some protein.

Wiethe's cases showed so much similarity to the cases described by Urbach that a re investigation of them was made by Urbach and Wiethe The cases were found to be identical As a result nine cases in four families were very thoroughly studied, and the essential features of the disease described

For the chemistry of the lipoids deposited in the tissues, a worthy contribution is a paper by Michelson and Laymon, and three articles by Wile et al.

In August 1829 a patient came into Dr Bechet's service at the New York Skin and Cancer Hospital, exhibiting a remarkable combination of mucous membrane and skin lesions So far as the author can deternine thus is the first case of this nature to be reported in America

History

The patient was normal at birth The onset was at six months when "deep sores" appeared at the tip of the tongue These soon spread to the mucous membrane of the mouth and throat The child was unable to cry The voice developed as a whisper

The lesions, which were one to four mm in size, spread over the hands, feet, and head The older lesions on the extensor surfaces tended to become vertucous At three years of age he had lost all his hair, although the hair returned one year later when the "sores" had healed

At seven the abdomen became distended with fluid, which lasted about eight months. The legs then became edematous. About eight large ulcers formed on the legs, and large quantities of "pus" were discharged from the "sores." In about a year the legs became normal in size and the ulcers healed

The new lesions came as soft infiltrations which healed with or without breaking down In the first instance they would sometimes take as long as six months to heal, in the latter they absorbed quickly

The lessons, which had a greater tendency to come during the winter, were continuous until coming under our observation

in August 1929

When our patient first came he could talk only in a whisper Over the face he had elevated areas of yellowish infiltration alternating, lace like with pitting Over the extensor surface of ears, eyelids elbow, backs of the fingers around the nuls of the hands and feet he had verrucose lesions The lips were dry and cracked The tongue and mucous membrane of the mouth and throat had many areas of infiltration. The vocal cords were infiltrated The lymphatic glands of the neck were enlarged Scattered thru out the areas of yellowish infiltration were small pea sized lesions which looked as though hemorrhage had occurred into the skin Other lesions were larger with the sluggish appearance of a low grade infection

Under continued observation it appeared that the first stage was a hemorrhage into the skin followed by quick absorption or continuing on to the sluggish lesion which often broke down

Biopsies were taken with the following results



Fig. 1. Showing lesions of the face.



Fig. 2. Showing lesions on elbow.

1. Biopsy from a lymph node showed extensive growth of fibrous tissue with scattered groups of lymphoid cells.

2. Biopsy from the mucous membrane showed a distinct pale staining homogeneous area with no nuclei; suggestion of cartilage but without

its staining reaction.

3. Biopsy from the skin showed an epidermis that was thin with a peculiar bluish discoloration of the connective tissue in parts of the corium. Certain areas looked as though they were deposits of material of undetermined origin. Weigert stain showed an absence of elastic tissue fibers in the areas of this deposit. The deposits took a pale yellow stain with picric acid. Van Gieson stain showed the same yellow deposit. There was a degeneration of the connective tissue fibers.

This merely confirmed our belief that we were dealing with some unusual change.

Not knowing what to do for him, as a matter of routine, we took him off all starches and sugars. The new lesions became less frequent although the weather was colder, and the infiltrations seemed to flatten.

This caused us to do a glucose tolerance test along with a cholesterol and a lecithin determination.

This test showed the flat curve supposed to indicate a diabetic tendency, according to the classification of Johns of Cleveland. The fatty acid showed 200 whole blood.

Lecithin showed 17.1 in place of the normal twelve to fourteen. The cholesterol was never very high (Table I).

We next did a glucose tolerance test cholesterol and fatty acid determination on the mother and father with the following results:

The father and mother both had increased sugar in the blood.

The father showed a high diabetic curve. Cholesterol showed 192. He showed a latent diabetic glycosuria.

The mother had a higher blood sugar and cholesterol but a lower glycosuria. The mother showed the flat diabetic curve.

Both showed marked diabetic tendencies.

TABLE I .- PATIENT'S FATHER AND MOTHER.

CHLORIDES	Chlorides	Urca N.	Uric A.
Father	462.7 479.3	16.9 10.0	1.93
FATTY ACIDS Father Mother	Scrum 266 311	Plasma 263 273	
LECITHIN NOT DONE	311	2/3	
Father	Whole blood 192 238	Serum 217 281	Plasma 208 266
GIUCOSE TOLERANCE ½ hr. 1 Father 108.6 171.6 1 1 1 1 1 1 1 1 1	hr. 1½ hr. 97.2 146.0 42.1 120.4	2 hr. 3 hr 109.9 111. 121.8 112	2 76.4
Father urine	2154o/o 1 hr. 246o/o 1 hr.	after injection	of glucos

We then put the patient on five units of insulin twice weekly. New lesions became very scarce and during the following winter ceased to appear. The insulin was discontinued June 1932. In the past four years no lesions have appeared. During the treatment there has been a gradual flattening of the infiltrated areas. Some have entirely disappeared. His voice now has a fair volume. Glucose tolerance tests have been taken yearly. Since 1933 the curves have been quite normal.

Last test was made October 7, 1933 and showed an almost normal sugar tolerance, normal cholesterol and lecithin content.

The chlorides which were high at the beginning of treatment are now normal.

On showing the case at the Hospital Clinical Society, Dr. Throne said Urbach had described several similar cases. This proved to be true and in the following we will compare our case with his reports.

Inheritance

Fanstmann family. Parents healthy Ten children; no miscarriages, The three first born as well as the fifth have lipoidosis. The fourth who died at the age of four, was said to have had severe inflammations of the tongue like his eldest brother. The remaining five children were healthy.

Hornath family. Parents healthy, Of six

children, two showed lipoidosis

Kats family. Parents healthy, are cousins; five children, of which two sisters have hooidosis

Ederer family. Parents healthy, are cousins; glucose tolerance shows mother to be a latent diabetic. Two sisters, the older having

lipoidosis

In our case mother and father healthy, no relationship Glucose tolerance tests showed both parents to be latent diabetics. Alimentary glycosuris more marked in the father. The first child a daughter died of lipoidosis at eight; second child, also a daughter, twenty-five alive and normal; third child a boy twenty-flive alive and normal; fourth child a boy twenty alive and normal, fifth child a boy, seventeen is the case under discussion here; one miscarriage

On the basis of the above facts, we can consider the disease to be familial but not definitely hereditary.

Clinical features

The most prominent feature m all of Urbach and Wiethe's cases and in our own was a marked degree of hoarseness, which usually appeared within the first weeks of life, and at the latest in the second year. With some, there was a story of repeated attacks of soreness of the mouth and throat. The skin changes followed those of the mucous membrane. The Wassermann reaction in all cases, including the parents, was negative The beard in the male patients

was as a rule sparse, while other secondary sexual characteristics were normal. In three of these cases, the upper lateral incisors were missing. In our case the lateral incisors were present

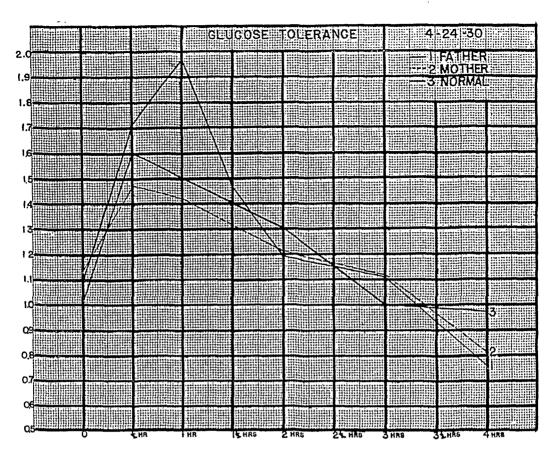
The skin changes consist of yellowish white nodular masses and of hyperkeratotic lesions, the former being present especially on the face, the latter on the extremities. Both types of skin changes always appear in the same person, but differ in intensity. On the lid margins, the masses were whitish in color and arranged like a string of pearls. In our case, these masses on the lid margins were somewhat verrucose in appearance. Between the yellowish white masses on the

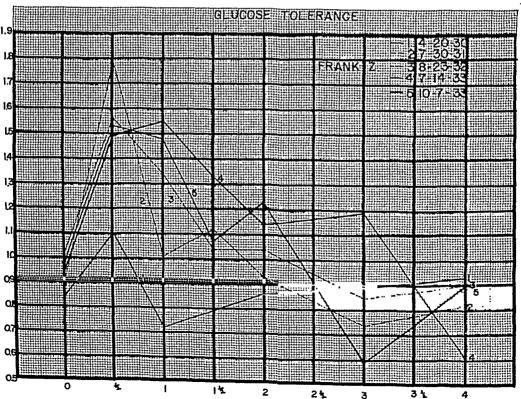


Fig. 3. Showing lesions of the mucous membrane of the mouth.



Fig. 4. Showing lesions of the lips and tongue,





face are found numerous white irregularly bounded bean-sized areas of which clinically, it is difficult to say whether they are at the same level as the normal skin or below it. Histological examinations show indeed scar like atrophic changes.

The vermilion border of the lips is almost always dry and shows many crack-like furrows, especially in the region of the angles of the mouth; similar notching appears at the vestibulum nasi. The place vestibuli is similarly lined with whitish yellow millet seed-sized nodules. Our case showed the nose lesions but they have now cleared.

In three of these cases, there were present on the elbow partly brownish violet, partly yellowish white elevations, made up of single nodules which shaded off into pigmented skin. (In our case there was

infiltration and scaring.)

As regards the remaining skin changes, there were a few variations depending upon whether the nodules or the hypertrophic changes were predominant. In all the cases, there were observed over the proximal interphalangeal joints of the fingers, numerous fine pin point-sized growths, with a mulberry like surface, only slightly raised, giving a nutuneg grater like effect. In our case in addition, there were similar mulberry like vertucose lesions. The tip of the toes near the nail were subject to irritation.

Especially remarkable were the uniform mucous membrane changes. The lips-in all cases the lower more marked than the upper -showed on their inner surfaces, beginning from the edge of the vermilion border to the gum (never diseased) somewhat hard, yellowish white deposits, irregularly uneven covered by normal epithelium and gradually passing over at the edges into millet seedsized nodules, while the mucosa of the cheeks was relatively slightly affected. The soft palate, the fauces, and the uvula showed a massive yellowish infiltration, with elevations alternating with scar-like depressions. The hard palate was not always, and then only slightly, infiltrated.

The tongue changes were characteristic. It was wood-like and movable only with difficulty. These changes indicated a deeply placed infiltration, which histologically was shown to be true. The papillae of the anterior portion were atrophic. The circumvallate papillae are only recognizable because of their V-shaped appearance. There was a widespread whitish infiltration of the lower surface of the tongue with marked thickening of the lower ligaments. Because of the latter changes, the tongue could be protruded only as far as the lips. In our case the lower ligaments were not infiltrated and the tongue could be protruded normally.

The faucial tonsils were covered en cuirasse with a whitish hard translucent mass. The lingual tonsils, the adenoids, occasionally, and the posterior pharyngeal wall were also affected.



Fig. 5. Condition after treatment.



Fig. 6. Showing normal tissue displaced by the deposits in the mucous membrane.

Marked changes were always present in the epiglottis, which with the tissue surrounding it, was of a yellowish red uniform color. The under surface of the epiglottis was thickened to almost double its size by



Fig 7. Showing tissues of the skin lesions displaced by the deposit.



Fig 8. Showing displacement in the normal lymphatic gland tissue.

irregularly elevated deposits. The aryepiglottic folds were greatly widened, more or less symmetrically. The vocal cords were thickened by the infiltration of grayish yellow masses, more pronounced posteriorly, giving rise to the hoarseness so early observed. In our case the base of the epiglottis was affected but the epiglottis not involved

One of Urbach and Wiethe's patients had similar changes on the inner aspect of the labia majora, and about the urethral orifice. Another had yellowish white nodular deposits in both axillae, with dirty green hyperkeratosis over the elbow and knees. The scrotum and gluteal folds were covered with sage-like yellowish white nodules. Scrotum and penis were normal in our case.

Histology

The essential changes were a homogeneous thickening of the vessel walls and an infiltration of the cutis and subcutis with lipoid deposits. The apparently normal skin and mucous membrane also showed changes of a slight degree, consisting of some endothelial proliferation of the sub-papillary vessels and of a homogeneous thickening of the walls of the deeper vessels, especially noticeable with the Mallory stain.

Early changes in the nodular lesions were an edema of the cutis, containing a dense homogeneous connective tissue, with many capillaries having proliferated endothelial linings and walls surrounded by more or less wide homogeneous layers. Numerous capillaries were filled with dark red homo-

geneous masses.

In a more advanced stage, there is predominent, in the histological picture, the presence of numerous apparently homogenmostly circular ı eddish staining masses, with only a few poorly staining nuclei and numerous variably sized fissures and gaps. These fissures and gaps are artificially produced caused by the action of the alcohol used in the preparation. The surrounding tissue showed a loosened connective tissue, with here and there completely homogeneous portions with similar fissures and gaps.

The warty excrescences on the fingers and the hyperkeratoses on the elbows and knees showed vessel changes corresponding to the early stages of the nodular lesions. The papillae were considerably widened due to an increase of the blood vessels in the papillary layer with considerable hyperkeratosis and increase in width of the granular layer. In many places could be seen homogeneous, vacuolated reddish staining bands running perpendicularly to the surface.

The mucosa showed similar changes. Directly under the epithelium of the

pharyngeal mucosa and tonsils were large homogeneous masses, free of nuclei, distinctly vacuolated with numerous fissures and gaps The subepithelial tissue of the soft palate was replaced by a reddish staining mass, containing many capillaries. The vocal cords and inferior surface of the tongue showed a loose tissue, devoid of nuclei, with numerous dilated vessels whose walls were homogeneous and stained red

In our case, in addition to tissue from the skin and mucosa, a lymph node was removed from the neck It showed almost complete replacement of the lymphoid tissue

With the Van Gieson stain, the homogeneous masses stained vellowish to brown, being easily differentiated from the reddish

staining fibrous tissue
The Weigert elastic tissue stain showed an almost complete lack of elastic tissue in the homogeneous masses. The subpapillary elastic tissue was diminished and only the larger vessels showed a thin elastic periphery about the homogenous walls

Histochemistry of the Infiltration

Frozen sections stained with Sudan III showed the spaces above referred to almost completely filled with dark orange-yellow homogeneous masses, showing that the fissures and gaps in the hematoxylin cosin stain were artefacts due to the solvent action of the alcohol Similar hemogeneous orangevellow deposits were seen as long bands. running in the deeper sections of the cutis and surrounding the blood vessels. In the early stages the lipoid material was found within the proliferated endothelium. The masses in the mucous membrane lesions stained similarly contrasting with the light red color of the neutral fats

Osmic acid did not stain the infiltrations.

whereas it colored black the fat in the sebaceous glands and subcutaneous tissues

By the staining methods of Ciaccio and Smith-Dietrich for lipoids, the infiltrating masses were shown to belong to that class of substances They stained orange-yellow by the former and deep blue black by the latter method

The digitonin test for cholesterol was negative

The lipoid was soluble in hot alcohol and in hot acetone, the lipoid in santhoma deposits is soluble in hot alcohol but not in hot acetone This is the essential difference between the two Inasmuch as hot alcohol and hot acetone did not remove the entire contents of the infiltrating masses, the latter must be composed of two substances, probably an albumen in physical combination with the lipoid

By the method of Smith-Dietrich, after Kutchera-Aichbergen, in which glycerin esters, cholesterm esters, free fatty acids and free cholesterin are unstained but lipoid of the phosphatide group are stained, the lipoids present were shown to belong to

the latter group

Metabolic Investigations

In all the cases, there was either an increased fasting sugar value or a pathological glucose tolerance curve. In three of Urbach and Wiethe's cases, there was a pronounced almentary glycosuria

Tables I-II show briefly the reports of the blood chemistry and glucose tolerance test The glucose tolerance curve was measured by the oral administration of 175 grams of pure glucose per pound of body weight

To determine whether a disturbed fat or carbohy drate metabolism was at the basis of

TABLE II -PATIENT (FRANK Z)

			Cliore	tes	Urca N		Uric A
4-24-30 7-30-31			466		11 5		1 75
8-23-32			503 491		11 5		2 84 2 25
7-14-33			458	5	12 0 11 7		2 60
10~ 7-33			471	0	11 7		3 20
FATTY ACIDS		11	hole Bloo	d	Serum		Plasma
4-24-30			200		223		202
LECITHIN (phosphorus) 4-24-30							
10- 7-33			17 1 11 0		rmal 12-14		
CHOLESTEROL					-		
2-15-30		Loc	tchole bl	ood	Serum		Plisma
8-23-32	•		105 114		143 131		138
7-14-33			118		163		127 151
10- 7-33			101		135		107
GLUCOSE TOLERANCE		36 10					
4-24-30	84 2	109 9	1 hr 72 5	11/5 hr 79 0	2 hr 85 0	3 hr 88 1	4 hr
7–30–31 8–23–32	89 4	178 8	101 8	112 5	93 4	73 7	92 84 2
7-14-33	97 6 94 8	153 8	148 6	107 3	123 2	59 O	90 7
10 -7-33	94 8 100 4	149 9 155 1	155 1 134 3	133 O 100 4	113 8 100 4	119 O	61 8 90 7

the disease, one patient was for four weeks given a fat free diet and ten units of insulin daily, but no change for the better resulted. She was then fed for four weeks on a low carbohydrate diet with the same dose of insulin with very marked improvement, showing that the diabetic disturbance had an etiological relationship with the disease.

Treatment

Insulin with a low carbohydrate diet has produced the greatest improvement. Radium was of no value. The nodules in the larynx can be removed by operation. The verrucose lesions around the eyelids were curretted.

Conclusions

1. The condition is systemic occurring in potential and not true diabetics, and in this differs from necrobiosis lipoidica diabeticorum.

2. The deposits are soluble in hot alcohol and hot acetone, whereas in the xanthomas the lipoid is only soluble in hot alcohol.

3. The deposit is apparently a phos-

phatic lipoid present as lecithin.

4. It appears to respond to treatment by a low carbohydrate diet and small doses of insulin.

Acknowledgment: For the pathological work we are indebted to Dr. E. A. Barthel; for the chemistry to Dr. C. N. Myers, and for the German translation to Dr. S. Monash.

50 EAST 58 ST.

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Discussion

Dr. Paul E. Bechet, New York City-Dr. Tripp is to be congratulated for the excellent presentation of a symptom complex, most difficult of interpretation, because of its rarity and its varied manifestationsclinically, histologically, and histochemically. This dermatosis will require further investigation before it can be definitely classified; as it is, Erich Urbach of the University of Vienna has already divided the lipoidoses, clinically, into nine groups, and histochemically, into eight. Examples of these various groups have been reported by Oppenheim, Urbach, Wiethe, Burger, and Grutz in Europe, and Michelson and Layman, and Zeisler and Caro in this country.

Urbach's group, and Tripp's case point definitely to a familial tendency and a diabetic potentiality in either or both immediate parents. I agree with Dr. Tripp in the opinion that necrobiosis lipoidica diabeticorum is an allied condition, despite the fact that Zeisler and Caro's case presented many different symptoms. In Tripp's case the extraordinary reticulated, yellowish lace like patches on the face, with variola-like pitting, was most striking, as also the great degree of hoarseness. The patient however did have discolored hemorrhagic nodules which occasionally broke down, thereby somewhat resembling the clinical appearance of the lesions on the legs in Zeisler and Caro's patient. It is to be hoped that as reports of new cases reach the literature, recognition of the new disease will thereby be greatly enhanced, with the result that it will be more easily observed and studied, and accurately classified.

LEAGUE FOR HARD OF HEARING EXTENDS INVITATION

The New York League for the Hard of Hearing, situated in the neighborhood of the Waldorf-Astoria on the eleventh floor of the Grand Central Palace cordially invites otologists, pediatricians and other members of the Medical Society of the State of New York to visit its headquarters and observe its work. There is a permanent exhibit on its premises of all of the approved hearing aids, both electrical and nonelectrical.

The League is the pioneer organization in this country, originating the present nation-wide movement in behalf of early medical care and enlightened medical provision for the hard of hearing child under

the leadership of the late Wendell C. Phillips, M.D., a former President of the Society. The League's Otological Clinic for the Study and Treatment of Diseases of the Ear, Edmund Prince Fowler, M.D., Director, holds its sessions at Manhattan Eye, Ear and Throat Hospital, Tuesday, Thursday, and Saturday afternoons at 1:30.

Arrangements may be made with the League staff for visits to the survey for conservation of children's hearing now in operation in the New York public schools through cooperation of Federal authorities and the League whose address is 480 Lexington Ave.; Telephone Wickersham 2-1853.

CONCENTRATED ANTIPNEUMOCOCCUS SERUM IN TYPE I PNEUMONIA

Control of Dosage by Skin Tests with Type-specific Polysaccharide

THEODORE J. ABLENETHY, M.D., New York City From the Hospital of the Rockefeller Institute for Medical Research

In 1929, Cole1 reported the results of serum treatment in Type I pneumococcus pneumonia, based on sixteen years' experience at the Hospital of the Rockefeller Institute. It was shown that, of 1256 cases of lobar pneumonia of all types, 431 were definitely found to be due to pneumococcus Type I. In 371 of these patients, as soon as possible after entry, intensive treatment with Type I unconcentrated horse serum was begun, and was continued at intervals of eight hours until clinical improvement of the patient had occurred, as manifested by reduction in the height of the temperature and lessening of the signs of toxemia. Large amounts of serum were given, the average amount used per patient being 420 c.c. In one case, as much as 2,000 c.c. of serum was necessary. Under this regimen, which was employed in 371 cases of Type I infection, thirty-nine patients died-a mortality rate of 10.5 per cent.

Since the beginning of this work, certain advances have been made in the serum therapy of Type I pneumonia. Efforts have largely been expended in certain laboratories along the lines of concentrating and refining the pneumococcus antibody to the highest possible potency. The methods of purification, as well as the clinical trial of such concentrated sera, have been fully outlined in the publications of Felton,2 Cecil.8-4 Park, Bullowa, and others. 7-9 Recently a definite advance in the treatment of Type I pneumonia has been made, with the observations of Francis10 that skin reactions to the Type I capsular polysaccharide may be a useful guide to the amount of serum necessary to terminate the disease.

In March 1934, a sample of Type I concentrated horse serum was made available to us through the courtesy of Dr. Augustus B. Wadsworth, of the Division of Laboratories and Research, New York State Department of Health. Since that

time, thirty cases of Type I pneumococcus lobar pneumonia have been admitted to the hospital. Twenty-five of these individuals have received concentrated antipneumococcus serum. Of the remaining five cases, two were given the uncon-centrated Type I serum with prompt response, a third was given an artificial pneumothorax, the disease in another was mild, and in the fifth patient, a sevenyear-old boy, serum was withheld because of the mildness of the disease. With these five exceptions, concentrated serum was given to every case of Type I infection as soon as possible after admission to the hospital. The results have been highly satisfactory, in that response to serum has been prompt and often dramatic, the complications have been few, and not one death has occurred in the series. It seemed of interest to report upon an analysis of our experiences with this concentrated serum.

The cases which have made possible this study were all admitted to the hospital through the usual channel-upon recommendation of outside physicians. As has been the custom at this hospital for many years, an attempt was made to admit the cases as early as possible following the onset of the disease. Typing was done soon after entry, making use of the Neufeld reaction first introduced in this country at the Rockefeller Hospital by Dr. Kenneth Goodner. By means of this reaction we have obtained typings directly from the sputum in twenty-one of these twenty-five cases soon after entry. The early typing has enabled us to give serum within a period of one or two hours after admission.

By far the greater number of patients in this series were young adults under the age of thirty. It has frequently been pointed out that Type I pneumonia is most often found in this particular age group. The cases in this series may be tabulated as follows:

Age of Patient	No.	of	Case
1-10 years		1	
11-20 years		10	
21-30 years		4	
31–40 years		3	
41-50 years		6	
51-60 years		0	
61–70 years		1	
	_		
Total		25	

Nine of the patients were females and sixteen were males. Five of these individuals did "heavy" work, thirteen did "light" work, and seven were unemployed.

Day of admission. In the majority of instances, patients were admitted to the hospital early in the course of their disease. While serum therapy almost always followed soon after admission, there were occasional instances in which treatment was delayed, either by failure to obtain satisfactory sputum or because of other therapeutic procedures such as pneumothorax. A comparison of the day of admission with the day of first serum treatment is given in Table I.

Comparison of the figures from the present series with the earlier ones from this hospital shows several interesting facts. It will be seen from Table II that a greater percentage of patients were admitted before the first three days of disease. This, we believe, reflects the increasing consciousness, on the part of the laity and physicians alike, of the possibilities of early diagnosis and serum treatment of pneumonia. It will be seen also from this table that the average case of Type I infection is being treated earlier. This we believe to be the result of our use of the Neufeld reaction, which ensures a prompt and accurate diagnosis.

Severity of disease. Although it was obviously difficult to gauge accurately the

various factors which determined the severity of each patient's illness, nevertheless a definite clinical impression was gained that the majority of the patients were acutely ill upon admission. The disease in twenty-one of the twenty-five cases was ushered in by an abrupt onset, usually by pleural pain, fever, or cough, with bloody sputum. When admitted there was high fever and consolidation of one or more lobes in each case. Bacteriemia was present in five cases when first seen. In one case, the number of colonies in the blood increased from less than one colony per two c.c. on admission to fifty-one colonies per c.c. the following day. In spite of bacteriemia these patients responded to serum therapy. The five cases with bacteriemia are tabulated in Table III.

Duration of acute symptoms before and after serum therapy. In every one of the twenty-five cases it was possible to note with a certain degree of accuracy the exact time of onset of the disease. This was usually taken to be the time of the initial chill, the first occurrence of pleural pain, the initial expectoration of bloody sputum, or a sudden change in the patient's condition for the worse following an upper respiratory infection.

Likewise it was possible to determine the cessation of the acute disease once serum therapy had begun. This was determined in every case by making frequent use of the Type I capsular polysaccharide as a skin test during the course serum therapy. As Tillett of Francis¹¹ originally showed, when the recovery processes have been initiated the skin gives a positive reaction to .01 mgm. of Type I polysaccharide, in the form of a wheal and erythema, which reaches its maximum intensity in fifteen to thirty minutes. Moreover, it was further shown

TABLE I

Day of Admission 1st day of disease 2nd day of disease 3rd day of disease 4th day of disease	12 7	Day of First Scrum Treatment 1st day of disease	8 7
5th day of disease	ĭ	4th day of disease 5th day of disease	3

TABLE II

86% admitted within first 3 days of disease. In 25 serum-treated cases, average time of beginning treatment—2.24 days after onset.

⁴³¹ Cases Type I Pneumonia R.I.H. 1913-1929

^{20%} admitted within first 3 days of disease. In 371 serum-treated cases, average time of beginning treatment—4.2 days after onset.

³⁰ Cases Type I Pneumonia R.I.H. March 1934-January 1936

by Francis, in a large series of Type I cases treated with unconcentrated serum, that specific therapy could be safely terminated upon the development of the pos-

itive skin test.

The cessation of the acute disease after specific therapy had been instituted was considered to be the time of first appearance of the positive skin test. While development of the latter was usually accompanied by an improvement in the patient's condition, there were a few cases in which the duration of disease had to be considered as the number of hours temperature had clapsing until the reached normal. These cases were few in . number, however, and in this group there was usually a delay of several hours after the skin test had become positive before general improvement of the patient occurred. In properly evaluating the effects of therapy it seemed only fair to make this distinction.

Computation of the records in the twenty-five cases has shown that 53.8 hours was the average elapsed time after onset before serum therapy was instituted. In other words, the average case was treated early in the third day of disease. Once serum treatment was given, however, an abrupt termination of the disease usually took place. In twenty-three patients crisis occurred and in the remaining two the temperature fell by lysis. The average elapsed time from the beginning of therapy to the first indication of recovery was only 22.6 hours.

Method of Therapy

Serum sensitivity tests. As soon as possible after the typing had been determined the patients were tested for sensitivity to horse serum. This was done in the usual manner by injecting .1 c.c. of 1:10 dilution normal horse serum into the skin of the forearm, with .1 c.c. of normal salt solution as control. At the same time one drop of the diluted normal horse serum was placed in the conjunctival sac of one eye. Sensitivity to horse serum was considered to be present if a wheal or erythema larger than 1 cm. in diameter occurred at the site of injected skin in fifteen to thirty minutes, or if the eye showed a conjunctivitis with lacrimation and itching. The skin test was done in all twenty-five cases, the eye test in twenty-one.

There were three patients who gave markedly positive skin tests. As events subsequently showed, these patients were sensitive to horse serum to a marked degree. In two other patients, slight sensitivity to horse serum was indicated by the skin test. However, in only one of these two patients did reaction to serum occur during the course of therapy, and the symptoms were relatively mild. There were eight patients who gave negative skin tests who, during serum administration, developed transient urticaria, flushing of face, fullness of head. cyanosis, lumbar pain or chill. These reactions were not alarming, and were readily controlled by small doses of adrenalin. It was difficult to know whether these reactions represented mild, but specific, sensitivity to horse serum protein, or were caused by toxic products in the serum. It has frequently been maintained that the conjunctival test is a much more reliable method of demonstrating serum sensitivity. claimed that slight degrees of sensitivity may be picked up by the eye test and that the difficulties of interpreting the doubtful skin reactions which not infrequently occur are thus obviated.

In our experience the eye test was of little value in telling the degree of sensitivity. In none of twenty-one cases was the test positive, and this series included the three patients who were later proved to be

markedly sensitive to serum.

Desensitization. Following the reading of the skin and conjunctival tests, and as a preliminary to the injection of concentrated serum, a small amount of diluted serum was given intravenously in nearly every case. This was usually one or two c.c. of a 1:10 dilution, but in some instances when the sensitivity tests were negative, as much as ten c.c. of a 1:10 dilution were given. In general, no deleterious effects from this procedure were observed. One of the three cases showing a markedly positive skin test to horse serum gave a slight reaction to this initial intravenous dose. The other two cases, however, failed to react to the small preliminary dose, but did give alarming delayed reactions when larger amounts of serum were given subsequently. In the light of these latter observations, it might have been advisable to proceed more cautiously with the administration of serum, i.e., desensitization with increasing amounts subcutaneously. But, in general, we

TABLE III

Case	No.	Day of Disease	Number of Colonies
9098 9349	***********	2nd	Less than 1 col./2c.e.
9464 9464 9699	***********	4th	Less than 1 col./2c.c.
9707	**********	2nd 4th	5 col./c.c. Less than 1 col./2c.c.

have not found this procedure necessary. A preliminary skin test and an initial intravenous dose of dilute serum, have, in our experience, been not only safe but an adequate guide to the administration of specific serum.

Serum administration. Concentrated serum was administered to all the patients in this series in doses of thirty c.c. every four hours.* Each dose of serum in most of the cases was given diluted with a small amount of normal salt solution (average 125 c.c.). This not only insured the slow and safe administration of serum but enabled the giving of extra amounts of fluid by vein. In a few cases the concentrated serum was given intravenously without dilution. When this was done, using the earlier lots of serum, technical difficulties were encountered on account of the high viscosity of the serum, the syringe not infrequently becoming jammed. However, under the present methods of preparation12 the viscosity of the serum has been materially reduced and technical difficulties have obviated.

Serum therapy was pushed at fourhourly intervals until the skin reaction to Type I SSS had become positive. It is well to point out that in the earlier series of cases reported from this hospital, the unconcentrated serum was given at intervals of eight hours, and large amounts were necessary. By frequent use of the skin test during the course of therapy, it was possible to give a minimal amount of serum. An initial skin test with SSS was done before therapy, and the test repeated at intervals of four hours, immediately preceding the next injection of serum. Five patients only received an extra amount of serum despite the development of a positive SSS test. These were given additional serum because their condition seemed unusually critical.

It was found that the average amount of serum given per patient in these twentyfive cases was eighty-three c.c. (335,000 units). However, in this group, there were three patients whose disease terminated abruptly following upon a severe serum reaction. One of these three patients received a total of twenty-one c.c. after a prolonged course of intravenous desensitization; another was given but five c.c., and another only two c.c. before a severe serum reaction supervened. Omitting these three cases, the average amount of serum given per patient in the remaining twenty-two cases was ninety-three c.c., or 376,000 units.

It was frequently possible to bring about cessation of the acute disease after one or two injections of thirty c.c. of serum. There were eight patients, however, who required more than the average of ninety-three c.c. of serum. Careful inquiry into these instances has thrown a possible light on why the additional amounts of serum were necessary. In every case some complicating factor was present. If these eight cases are excluded from the series in addition to the three cited above, it is seen that the amount of serum necessary to treat the average uncomplicated case of Type I pneumonia is fifty-seven c.c., or 203,000 units. An analysis of the complicating factors in each of these eight cases is as follows:

Case No. 9023 was given 150 c.c. (450,000 units). Treatment, begun on the fourth day, was complicated by the development of sterile serofibrinous pleurisy.

Case No. 9098 was given 100 c.c. (300,000 units). Bacteriemia was present on admission, less than one colony per two c.c. Treatment

was begun late in the disease, on the fifth day. Case No. 9300 received 180 c.c. (540,000

units). A low white blood count was present on admission and persisted for several days.

Case No. 9349. 120 c.c. (360,000 units) were given to this patient. A low white blood count of 4,600, and bacteriemia of ten colonies per

c.c., were found on admission.

Case No. 9445. This patient was a chronic alcoholic. Although treatment was started on the second day, therapy was interrupted for twentyfour hours because of an insufficient supply of

serum. 160 c.c., or 480,000 units, were given. Case No. 9464. This patient was treated by pneumothorax shortly after admission. The admission blood culture, on the third day, was positive, less than one colony per two c.c. By the next day there were fifty-one colonies per c.c. in the blood. At this point it was felt that specific therapy could no longer be delayed. Treatment was then begun on the fourth day, and a total of 200 c.c. (1,200,000 units) was necessary to bring about improvement in his condition.

Case No. 9529 was an individual treated late in the course of his disease, on the fifth day. Alcoholism was present to a moderate degree. (840,000 units were given.)

Case No. 9567. This natient had a low admission white count of 6.520. The count remained below 10,000 for three days. The acute febrile period was complicated by an active alcoholic delirium. A sterile pleural effusion developed early in the course of his disease. (1,170,000 units were given.)

In the 1929 report of 371 cases treated with unconcentrated serum, the average amount of serum employed was 420 c.c. per patient, although some received much

^{*}The estimated potency of this serum as determined by the mouse protection test was 3,000 units per c.c. in most of the lots used. One lot of serum, however, contained 6,000 units per c.c.¹²

more than this amount. The unit value of these earlier lots of serum according to the present method of standardization is not known, but it is obvious that the actual volume of concentrated serum required is much less. On the other hand. the amount of serum employed, and especially the number of units required, in this series, was much larger than that recommended by certain other observers For instance, Lord and Heffron state that thirty cc of serum, containing 60,000 units, is sufficient for the early treatment of mild or moderate infections, although additional injections of 20 000 to 40,000 units may be required. The experience of the present series indicates that these amounts are not sufficiently large, and that the method we have employed, namely, 90,000 units for the first dose and the same dose repeated every four hours for as many doses as is necessary, gives more satisfactory results

It has long been recognized that the number of leukocytes in the circulating blood may often be an indication of the patient's response to the infection. A low leukocyte count usually means a severe

infection and poor response on the part of the host. A high admission white count, on the other hand, is generally considered to be a more favorable prognostic sign

We have been interested to determine whether or not the existence of a complicating factor such as a low leukocyte count alters in any way the patient's response to serum In the light of Goodner's observations¹³ upon certain host factors in pneumococcal infection of mice and rabbits, it seemed of interest to chart in these twenty-five cases the relation between the admission leukocyte count and the total amount of serum used (Charts I and II)

It will be seen from Chart I that the majority of the points fall within a particular zone. This zone is bounded by a horizontal line, representing the average amount of serum (93 cc.) given to twenty-two patients, and also by a hypothetical vertical line dividing a good leukocyte response (10,000 or above) from a poor one

Chart II depicts the relation between the admission leukocyte count and the total amount of serum used according to

CHART I—THE RELATION OF THE ADMISSION LEGISORY COUNT TO THE TOTAL AMOUNT OF SERUM, EXPRESSED IN CUBIC CENTIMETERS (OPEN CIRCLES REPRESENT CASES RECEIVING ONLY CC SMALL AMOUNTS OF SERUM BECAUSE OF REACTION)

200

100

5000

10,000

15,000

20,000

25,000

30,000

35,000

Admission leukocyte count

the number of units. As in the previous chart, the horizontal line represents the average amount of serum (376,000 units) given to twenty-two patients. In these charts it will be seen that there are eight points falling outside of the rectangular zone. These are the eight patients cited above, in whom some complicating factor was known to be present.

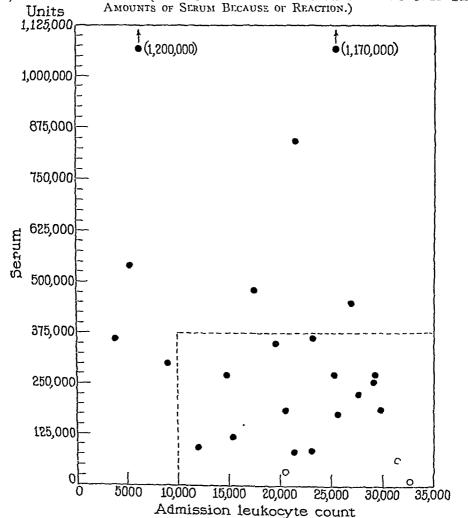
Control of Dosage

Skin tests, capsular polysaccharide. This test has been of great value, not only as a guide to serum therapy, but as a prognostic sign. The technic of the test is simple; it can be read quickly and very easily, and rarely gives equivocal results. Francis¹⁰ originally reported on use of the test in fifty-three cases of Type I

pneumococcus lobar pneumonia, fortyeight of which were treated with unconcentrated Type I serum. Our experience
with the test in twenty-five cases of pneumonia treated with concentrated serum,
while not as large, is in agreement with
his findings. However, we have elaborated the test to a certain extent by performing the injections at more frequent
intervals. We have done tests, not only
before therapy was instituted, but frequently during serum administration and
afterward.

The explanation of the positive skin reaction obtained in these Type I cases, once the recovery processes have been initiated, is still obscure. It has been assumed that two factors are necessary for positive reactivity of the skin: active

CHART II.—THE RELATION OF THE ADMISSON LEUKOCYTE COUNT TO THE TOTAL AMOUNT OF SERUM, EXPRESSED IN UNITS. (OPEN CIRCLES REPRESENT CASES RECEIVING ONLY SMALL AMOUNTS OF SERUM BECAUSE OF REACTION)



tissues, and type specific antibodies, and that the absence of either factor results in failure to react. Of these two, only one lends itself to quantitative demonstration, namely, the specific agglutinins in the serum. It has been shown repeatedly that the development of type specific agglutinins is associated with the processes of recovery. There is no accurate gauge, however, of the state of reactivity of the issue cells nor of the various factors that influence this reactivity. It is believed that in patients with profound toxenia or in moribund condition there is a depression of the cellular reactivity.

Frequent observations upon the skin test with Type I SSS during various stages of lobar pneumonia have demonstrated interesting phenomena, and while their significance is not yet understood, nevertheless they may throw some light on tissue reactivity in general These may be mentioned briefly as follows

be mentioned briefly as follows

1 Spontaneous appearance of positive test at site of previously moculited SSS This occurred in two patients during the course of therapy (No 9445 and No 9344)

2 Spontaneous appearance of positive test at site of previously inoculited SSS stimulated by another injection of SSS. This occurred in one patient (No 9349)

3 Disappearance of positive test after therapy has been stopped and its subsequent reappearance later in convolescence. This occurred in three patients (No 9291, No 9300 and No 9464)

4 Reactivation of positive test at site of previous inoculations of SSS during serum disease. This was discovered in two patients (No 9464 and No 9529)

These aberrations in no way vitiate the value of the skin test, since in the majority of cases serum therapy was stopped at the appearance of the first positive reaction to SSS

Serum disease Serum disease was con sidered to be present if any of the characteristic manifestations of fever, skin lesions, joint involvement, or lymphadenopathy were noted Of the twenty five cases, seventeen (68 per cent) showed some sign of serum disease Light patients, some of whom had had large amounts of serum, showed no signs what ever While the incidence of serum sickness was found to be relatively high, the nature of the disease was mild in the majority of the cases In seventy per cent

of the nationts the manifestations were mild and in the remaining thirty per cent they were severe. The average time claps mg between the beginning of therapy and the appearance of the first symptoms was 78 days. It appeared as early as the third day, and as late as the fifteenth day following serum. The average duration was 34 days There was no tendency for serum disease to develop earlier than usual in the patients who were sensitive to serum In fact, in one of the patients who gave a marked initial reaction, no serum disease occurred No correlation was found in this series between the total amount of serum given and the occurrence and nature of the serum disease

By far the most common finding was involvement of the joints. This occurred in twelve individuals, and was severe in seven cases. All of the joints might be affected. There was apparently no predulection for any particular joint. The arthralgia was readily controlled by

aspırın or pyramıdon

Fever, varying between 100° and 105° Γ , occurred in twelve of the seventeen

patients with serum disease

Skin lesions manifest were of two types one, a fine, macular eruption, sometimes scarlatiniform in nature, which did not itch and usually lasted about twenty-four hours. This was seen in three patients. The other was the classical urticaria which occurred in only seven individuals, in none of whom was the urticaria troublesome.

Lymphadenopathy was detected in

three patients, but was not severe

In this series of cases, the incidence of serum disease was apparently much greater than that found by other observers employing concentrated serum Lord and Heffron, for instance, in the Massachusetts Pneumonia Study, found that serum disease occurred in only eighteen per cent of their cases. It should be borne in mind, however, that unless particular attention is given to the matter, mild symptoms may be overlooked In our series of hospitalized cases, all symptoms which might be ascribed to serum disease have been recorded as due to this cause Accurate statistics regarding the frequency of occurrence of these symptoms following the administration of whole serum are not available. While the incidence of serum disease in the cases treated with concentrated serum was apparently not decreased as compared with the cases receiving whole serum, the impression gained by all those having experience with the two methods was that the symptoms were considerably milder concentrated serum the when employed.

Complications. Complications in this series of twenty-five cases were relatively infrequent. A serofibrinous pleurisy developed in seven cases. In five of these the fluid was present to a degree sufficient to indicate thoracentesis. A sterile effusion was found in each case. No instance of empyema occurred. One patient developed a femoral thrombophlebitis and underwent a long convalescence following pulmonary infarction.

Summary

- 1. Twenty-five cases of Type I pneumonia have been treated with Type I concentrated antipneumococcus serum, with no fatalities.
- 2. Use of the Neufeld typing reaction has made possible the beginning of treatment at an average of 53.8 hours after the onset of the disease.

- 3. Response to serum has been prompt, the cessation of the acute disease occurring at an average of 22.6 hours after the beginning of serum administration.
- 4. By use of the skin test with Type I capsular polysaccharide, it was possible to give a minimal amount of serum; eighty-three c.c., or 335,000 units, was the average amount of serum given per patient. It was found that fifty-seven c.c., equivalent to 203,000 units, was the amount of serum necessary to treat the average uncomplicated case of Type I pneumonia.
- The existence of complicating factors, particularly a low leukocytic reaction, was found to alter the patient's response to serum therapy.
- 6. Serum disease occurred in sixtyeight per cent of the twenty-five treated cases. It was mild in seventy per cent of the patients. Involvement of the joints was the most common symptom. Urticaria was of mild degree.
- 7. Complications were few; sterile serofibrinous pleurisy occurring in seven patients. Empyema was not encountered in this series.

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CHECKS DANGLED BEFORE THE DOCTOR'S EYE

In an effort to unearth new writing talent in the non-fiction field, the Reader's Digest announces five prizes of \$1,000 each for unpublished, non-fiction articles by persons who never have contributed to national periodicals. In addition to these prizes, \$500 will be paid for each manuscript judged acceptable for publication.

"There are people in all walks of life," according to the announcement, "who, thanks to unusual experience, observation or reflection, might well write magazine articles of lasting interest and significance, but for lack of encouragement have never done so." Physicians, surgeons, all members of the medical profession are cited as offering promise as sources of new writing talent.

"An illuminating experience, a special knowledge of some phase of American life, or an unusual opportunity to observe human nature may be had by individuals in any occupational field." Full details will be mailed upon request by addressing the editors at Pleasantville, New York.

A surprise awaited the thief whom Dr. Joseph Wrana, gynecologist, of Kew Gardens, Queens, reported to police had stolen

from his car a reel of motion picture film depicting unusual cases in gynecology and obstetrics work.

TUMORS AT THE BASE OF THE SKULL

S BERNARD WORTIS, M D and SAMUEL BROCK, M D, New York City

From the Neurological Service of Bellevue Hospital, the New York Neurological Institute and the Department of Neurology. New York University College of Medicinic II e are indebted to Dr. Foster Kennedy and Dr. Thos. K. Davis for permission to report these cases.

Tumors at the base of the skull are often difficult to diagnose early. The type of neoplasm may be lymphoepithelioma, branchiogenic carcinoma (squamous cell epithelial growths), malignant growths spreading from the nearby sinuses, benign bony growths and rarely basilar glandular enlargements and infiltrations that occur in Hodgkin's disease. The bones of the middle crainal fossa are the commonest site of invasion.

We are reporting a series of ten tumors of varied pathology involving the base of the skull. The first two instances are the so called lymphoepitheliomata. Schmincke (1921)¹ first described this group of tumors arising in the posterior naso pharynx. Six years later Ewing² pointed out that lymphoepitheliomata are really transitional cell carcinomata and recommended their treatment by radiation New, Harmer and Glas, Woltman, Crow and Baylor, and Gardham lave described similar tumors of the naso pharynx

Case I PK, male aged fifty five was admitted to Bellevue Hospital September 10 1932 Eight months previously he began to spit blood, this was followed two months later by bilateral timitus. Two months later he noticed that the left nostril felt 'stuffed', smell and taste were defective. Six weeks before admission he noted en larged panless cervical lymph glands. Six days before admission he experienced double vision and dysphagra. For one month prior, he had vonited daily.

Examination showed a left ptosis and a left pupil greater than the right There was left ophthalmoplegia (internal and external) with paralysis of the muscles of mastication on the left and of the face on the left Hearing was diminished on the left, con duction deafness Paralysis of the left palate and tongue were noted

X ray of the skull was negative Other laboratory tests were negative. The patient failed rapidly and death occurred October 10 one month after admittance to Bellevue Autopsy showed infiltration of the left Gas.

sering ganglion with a gray opique tumor which filled both maxillary antra and in vaded the roof of the mouth and the pharing

Histological examination of the tumor showed it to be a lymphoepithelioma originating or extending into both maxillary antra and the posterior nasopharyinx Section of one of the upper cervical lymph nodes showed the same metastatic epitheliomatus cells

Case II DB, male forty eight years, was admitted to Bellevue Hospital August 10, 1934 His illness began with headache in August 1933, this was followed by the appearance of a firm mass low in the left side of the neck which increased in size In February 1934 part of this tumor was excised and found to be a branchiogenic carcinoma (plexiform epithelial type) Later the left clavicle was invided and there was loss of power in the left upper extremity, attributable to brachial plexus involvement Diabetes mellitus was discovered in February 1934 In May he had double vision, this was followed by weakness of the right face and pain in the right upper face

Examination revealed paralysis of the right external rectus and the right muscles of mastication. There was right upper facial hyperesthesia, right eighth nerve deafness, right sternomastoid and upper trapezius weakness (11th nerve), right palatal (9th nerve) and tongue (12th nerve) weakness. Weakness and diminished reflexes were found in the right upper extremity

The laboratory findings were negative except for glycosuria and acetonuria

X ray therapy was given

Further course of the case is unknown since the patient has not returned for follow up study

Case III JN, aged twenty one, entered the N Y Neurological Institute January 17, 1931 His present lustory begin in February 1930, he began to suffer with pains around the left orbit which radiated to other parts of the left side of the face After three months, facril sensation was impaired on the left and vision in the left eye was diminished One month before admission the patient noticed tunnitus in his left ear

February 6, 1930. Two years before admission his symptoms began with pain in the right temporal region and swelling of the right cheek. A bloody discharge from the right nostril had existed for several months. Two weeks before entry his right eye became blind and generalized weakness set in.

Examination revealed a firm full infiltration of the right temporal region and a serosanguineous discharge from the right nostril. The right half of the palate presented a hard mass, projecting into the naso- and oropharynx. There was exophthalmos, amaurosis and primary optic atrophy on the right side. The pupils were unequal, the right larger than the left. Right external rectus weakness and right middle ear deafness were present. The tongue deviated to the right side, the palate to the left; speech was nasal. The patient was cachetic.

X-rays showed erosion of the right maxilla and a dense shadow in the right antrum. Radiation therapy was given. He died four months after admission (i.e. two and a half years after the onset of symptoms).

Autopsy showed a firm elastic tumor, the size of a lemon, bulging upward into the middle half of the right middle fossa. The tumor arose from the right antrum and invaded the right ethmoid, the sella turcica and eroded the right clinoid processes; the medial half of the petrous part of the right temporal bone was destroyed. It eroded the right orbit; the right eye was proptosed but itself uninvolved.

The histological diagnosis was plexiform epithelioma originating in the nasal sinus epithelium.

Case VIII. I.C., female, aged twenty-eight, was admitted to the N. Y. Neurological Institute March 28, 1934. In September 1933 she had a sensation that the right ear was "full of water"; there was buzzing, roaring, and hissing in the right ear. In December 1933 she had pain in the right external auditory canal and the right face. A sensation of falling to the right was experienced. Slight swelling of the right side of the face and enlargement of the right upper cervical lymph nodes were noted.

Examination revealed conduction deafness on the right. Sensation was diminished to pinprick over the second and third divisions of the right trigeminal nerve. There was slight increase in the deep reflexes on the left side. The right abdominal reflexes were greater than the left. Sensation over the anterior two-thirds of the tongue was diminished on both sides. Vestibular reactions were negative.

X-rays of the skull showed a large irregular defect on the floor of the right middle fossa. This defect involved the inner anterior portion of the petrous pyramid and the foramen ovale. In addition, there appeared to be some destruction of the right lateral border of the basisphenoid. The right jugular foramen was quite large. The foramen lacerum on the right also formed a part of the defect in the middle fossa. The x-ray diagnosis was malignant growth destroying the floor of the right middle fossa.

All other laboratory tests including spinal fluid and serology were negative. A neoplasm was discovered in the nasopharynx: a biopsy was taken. Histological study showed it to be a lymphoepithelioma.

The patient was given two courses of deep radiation consisting of thirty and fifteen treatments in each series. X-ray therapy produced remarkable improvement.

Skull x-rays made nine months after the first showed:

(1) The bony defect in the greater wing of the sphenoid is about the same in its extent as before; in some places it presents several motheaten areas. There is new bone production at the petrous tip on the right. It seems to be more definite in outline and has more calcification than seen previously. The examination points to a gradually healing process at the base.

The patient now shows no abnormal neurological signs. Her deafness and tinnitus have cleared up entirely and there is no sensory defect on the skin of the right face. She has resumed her work.

Case IX. M.G., male, aged twenty-one, was admitted to Bellevue Hospital April 21, 1933 and discharged unimproved on May 12. His illness began seven years ago with the sudden onset of left facial paralysis which cleared up rapidly. Five years ago he had a left radical mastoidectomy and two weeks after the operation his facial paralysis reappeared and persisted. Three years ago he began to complain of headache which was exaggerated by motion of the head and right-sided attacks of hypertonicity which came on once a month. At this time his left mastoid was reexplored at the N. Y. Polyclinic Hospital and a tumor was found filling the mastoid defect. Histological study showed it to be a lymphangioma. The patient was given radium therapy locally. Two years ago he began to have generalized convulsive seizures occurring once a week; these attacks have persisted to the time of admission.

Examination revealed a left peripheral facial paralysis, nerve deafness on the left, and atrophy and fibrillations of the left half of the tongue. Paralysis of the left half of

the soft palate was evident. There was no trigeminal nerve involvement and the deep reflexes on the right side were over active. Later, paralysis of the left external rectus muscle and horizontal nystagmus super-

Encephalograms were attempted but only a small amount of air was found to enter the ventricular system. The roentgenograms showed calcification in a tumor near the left

netrous bone.

The patient was given radiotherapy and discharged home. As we have been unsuccessful in our attempts to locate the patient since his discharge, his present status is not known.

Case X. J.S., a man twenty-five years of age, was admitted to Bellevue Hospital August 10, 1934. Five months prior to admission he noticed "soreness" in the right cheek. Later, defective hearing on the right side was noted and headache supervened. Ten days before admission the right cheek became numb and he saw double when his right eye "turned in."

Examination showed paralysis of the right external rectus muscle. There was diminution of sensation over the middle part of the right side of the face (maxillary branch of the right trigeminal nerve). Later, internal and external ophthalmoplegia and ptosis set in; right third nerve paralysis followed, and finally complete right motor and sensory trigeminal paralysis. An infiltrating mass was found projecting into the right naso-pharynx.

X-rays of the skull were negative. X-rays of the sinuses showed haziness in the right maxillary, ethmoid and frontal sinuses. Other laboratory tests were negative.

Biopsy of the nasopharyngeal tumor made at the Memorial Hospital showed it to be carcinoma of salivary gland origin. The patient received x-ray therapy but died December 24, 1934. Autopsy was not permitted. The pathologist commented on the fact that he had never before seen salivary gland carcinoma extend to involve the structures at the base of the brain.

To our knowledge the only other case of salivary gland carcinoma invading the structures at the base of the skull was reported by Scarff* in 1934. The clinical course of his case was similar to ours and the tumor material was seen by Dr. James Ewing and identified as salivary gland tumor.

Discussion

Several points of importance may be emphasized in considering these cases. Certain facts in the history were of particular significance. All of our patients were adults. Most of them had continuous pain and numbness in one side of the face or about the ear. A history of sinusitis commonly coexisted and sometimes misled the physician. Epistaxis, double vision, and unilateral tinnitus or deafness were other symptoms. The patient sometimes noticed enlargement of the upper cervical lymph nodes.

The examination frequently disclosed impairment of all forms of sensation over the cheek, lower eyelid, upper lip, and the corresponding mucous membranes on one side (i.e. maxillary or second division of the trigeminal nerve). The muscles of mastication were involved (motor branches of the third division of the trigeminal nerve) producing deviation of the lower jaw toward the affected side.

Paralysis of the extrinsic eye muscles, especially the external rectus muscle,

often resulted in diplopia,

One sided deafness with or without tinnitus usually proved to be of conduction type. Gardham has emphasized this point and believed it was due to invasion or compression of the Eustachian tube by the neoplasm.

Examination of the oral cavity sometimes revealed a palpable bulging of the soft palate produced by the new growth.

One of the most characteristic physical signs was early bilateral enlargement of the upper cervical lymph nodes which were filled with tumor cells.

Three special examinations proved essential for early diagnosis. Inspection of the posterior nasopharynx revealed a small laterally placed tumor near the Eustachian orifice in some cases. X-rays of the base of the skull should be taken to determine the presence of erosion of the petrous bone or the greater wing of the sphenoid bone. Cloudiness of the sinuses may be due to tumor growth.

Tissue should be removed from the tumor in the nasopharynx or one of the enlarged cervical glands. Histological study of this material gives the final

diagnosis.

Early recognition of these cases is of especial importance because many of the tumors (the lymphoepitheliomata as in Case VIII—i.e. transitional cell carcinomata), the lymphogranulomata (Hodgkin's disease), and some lymphosarco-

mata respond remarkably well to radiation therapy. Repeated courses of radiation are necessary and should be applied at regular intervals. If these patients remain untreated, or if the tumor is not radio-sensitive, it progresses rapidly to involve the structures in the orbit, middle and anterior fossae, etc. (as in Cases I, V and

The terminal cachexia of these patients is partly caused by difficulty in swallowing

Treating these patients by ordinary surgical methods is useless because of the inaccessibility of the tumor.

> 410 EAST 57 ST. 1192 PARK AVE.

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Discussion

pancreas, and other sources; sarcomata of the body of the sphenoid, and of the retroorbital region; chordomata; neoplasm of the Gasserian ganglion, and of the optic chiasm; acoustic neurofibromata; osteomata; osteogenic hyperplasia associated with some meningeomata; hemangiomatous growths; and hypophyseal adenomata. Aneurysms of the basal vessels are at times difficult to differentiate from neoplasms.

Most of the above mentioned tumors erode or alter bony structures and are. therefore, detectable by x-ray studies. Such neoplasms make it imperative to appraise the integrity of cranial nerve functions as well as other neurologic symptoms and signs. Persistent pain or numbness about the head or face warrants inspection of every nook and cranny of the head for primary malignant disease. Biopsies should be done whenever possible.

Drs. Wortis and Brock are to be congratulated for arousing our interest in the rare but serious pitfalls to be found in some growths at the base of the skull.

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Dr. Lloyd H. Ziegler, Albany-This in-

teresting paper presents to our Society a fine collection of rather rare and unusual cases encountered in the practice of medicine. As neurologists we are reasonably familiar with such syndromes. Because patients with such diseases often consult ophthalmologists, oto-laryngologists, dental surgeons early in their illnesses, this report should be of much importance to them.

Three things mentioned are somewhat out of the ordinary—the salivary gland tumor that metastasized to the base, the relatively early age of onset of most of the growths, and the marked improvement of one patient under deep x-ray therapy. Carcinoma arising in the nasopharynx, mucous membranes of the nose and accessory sinuses, or portions of the face and scalp, may extend and erode through the base of the skull to produce meningitis or multiple cranial nerve palsies. In addition to these, I have seen the following malignant and benign growths at the base: metastatic neoplasms originating from the prostate, breast, bone marrow,

MEDICAL RADIO BROADCASTS

The Medical Information Bureau of the New York Academy of Medicine announces following broadcasts from WABC and the Columbia Broadcasting System network:

Thursday, April 16, 1:45 p.m.—Speaker: Dr. Armitage Whitman, Associate Professor of Orthopedic Surgery at Post Graduate Hospital. Subject: "History of Orthopedic Surgery."

Thursday, April 23, 1:45 P.M.—Speaker: Dr. Frederic E. Sondern, President of the Medical Society of the State of New York. Subject: "Medicine-Trade or Profession."

NU SIGMA NU ALUMNI DINNER

The Annual Dinner of the New York Alumni Association of Nu Sigma Nu will be held at the Yale Club at 7 P.M. Wednesday evening, April 29.

Seating will be according to chapters, therefore all alumni are requested to mail their professional card with Class and Chapter to the Secretary so that invitations may be mailed, and reservations made by return postcard.

Don't fail to register at the Nu Sigma Nu desk at the Annual Meeting of the Medical Society of the State of New York at the Waldorf Astoria, April 27, 28, 29.

The New York City address of the Nu Sigma Nu Alumni Association is Room 2207, 730 Fifth Avenue.

ERYTHROBLASTIC ANEMIA Clinical Observations In An Adult

ELLERY G. ALLEN, M.D., and DONALD S. CHILDS, M.D., Syracuse

From the Departments of Medicine and Radiology, Syracuse University College of Medicine.

Aided by a grant from the Hendrick's Research Fund.

The differential diagnosis and classification of anemic patients with spleno-megalia frequently presents great difficulties; particularly is this true when there is also evidence of a variable degree of jaundice, immature blood corpuscles in the circulation, and, possibly, roentgeno-logic bone changes. The studies of Cooley and his associates have done much to clarify our knowledge on this subject and it now seems certain that his term, Erythroblastic Anemia, refers to a definite clinical entity, as follows.⁶

In view of recent knowledge, it seems probable that similar cases have been regarded previously as instances of Von Jaksch's Anemia, Pernicious Anemia, Sickle-Cell Anemia, Hemolytic Jaundice and other unusual forms of splenic anemia.

It is not the purpose of this report to summarize the clinical features of crythroblastic anemia, such as are adequately described elsewhere^{1-16, 83} but to present some similar observations in one of the few adult cases thus far recorded.

Case History

married. Italian pharmacist, aged twenty-four, was first examined on October 2, 1931. His complaint at that time was a varying degree of "yellow color" since child-hood. The family history was noncontributory; one brother, whose blood was studied, showed no hematologic abnormalities. He had suffered no other serious illness and had never been confined to bed for as long as a week. His present complaint dated from his earliest remembrance, declaring that never during his boyhood did he have a ruddy color like most of his companions; his parents said that he had been pale and, at times, "yellow" since the approximate age of two years. His growth was normal, he exhibited proficiency in his studies and graduated from college. He had always been able to work hard without undue fatigue and competed in athletics. For three or four months he had noted that the left upper portion of his abdomen had been more prominent than formerly and, on occasions, he had experienced a "pulling sensation" in this region.

The patient was well-developed, ade-

quately nourished, weighed 165 pounds and measured seventy inches in height. The skin was pale and definitely icteric, the facial appearance was hardly that of an Italian, due to some prominence of the frontal bosses and malar eminences. The blood pressure, pulse, and temperature were normal. The epitrochlear and inguinal glands were palpable but otherwise not remarkable. The left upper quadrant contained a firm, nontender, smooth mass, which extended to the level of the umbilicus with inspiration. A systolic nurmur was heard over the precordium, loudest at the pulmonic area and in the fourth left intercostal space, close to the sternum.

The red blood cells were 4,405,000, white blood cells 6,650, hemoglobin 7.5 grams, color index and volume index .6. The differential count was not remarkable, except that an occasional myelocyte and an increase in the nonfilamented polys was noted. Three normoblasts were noted while counting 250 white blood cells. The smears showed extreme poikilocytosis, hypochromasia, stippling and a fair number of microcytes (Fig. 1). The reticulocytes numbered 6.2 per cent. The icterus index was twenty-two with an indirect Van den Bergh reaction. The bleeding and clotting times were normal. The fragility test showed an increased resistance of the erythrocytes, hemolysis being completed in .26 per cent sodium chloride solution. Gastric analysis, after 1/2 mg. histamine, showed normal values for free hydrochloric acid; blood cholesterol 100 mg.; the patient's blood serum did not agglutinate his own red blood cells. The Wassermann and Kahn tests were negative. Several urine analyses were negative, except for the rare presence of an increase of urobilinogen.

Clinical Course: A tentative diagnosis of atypical hemolytic anemia was made and splenectomy was advised. The patient refused operation and the following therapeutic measures, all without definite hematologic improvement, were attempted: iron and ammonium citrate, ninety grains a day for six months; iron and ammonium citrate, ninety grains a day, and copper carbonate, 1/16 grain a day, for three months; intramuscular liver extract (Parke, Davis, 2 c.c. = 10 grams liver), two c.c. every other day for six weeks; intramuscular liver extract

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(Lederle's, 3 c.c. = 100 grams liver), three c.c. twice a week for two weeks.

The patient was studied by Dr. H. Z. Giffin at the Mayo Clinic. A summary of his findings is as follows:

Blood count on April 11, 1933, showed 7.2 grams hemoglobin, 3,810,000 erythrocytes, and 6,100 leukocytes. Occasional metamyelocytes, myelocytes, and promyelocytes were found in the smears but no stem cells. The smears presented a most unusual picture. There was extreme poikilocytosis, almost suggestive of fragmentation of the red cells, marked hypochro-

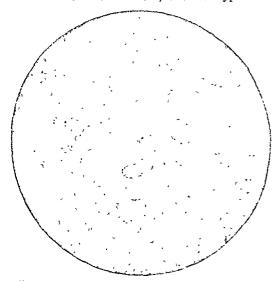


Fig. 1. Stained erythrocytes prior to splenectomy. X-1200.

masia and anachromasia, stippling, and there were many microcytes, although these were biconcave, not spherical. There was a definite left shift of the neutrophils and an occasional normoblast was seen. Reticulated cell percentage was 6.6. A wet smear for sickle cells was negative; platelet count, by the direct method from the ear, was 148,000 and the bleeding time two minutes. The viscosity of the blood was 3, compared with our normal of 4.5. Fragility test showed a definite increase in maximal resistance. Liver function test did not show any dye retention. Serum bilirubin was 2.8 with an indirect reaction. Serum viscosity was 1.7 and plasma viscosity 1.5. The hematocrit showed a red cell percentage of 26. The albumin globulin ratio was 2.4:1. The whole blood volume was 84.3 c.c. per kg., compared with a normal of 89 c.c. A peculiar feature of the blood was failure of sedimentation at the end of one hour. Blood urea estimation was normal. Blood group was four, Moss classification; serologic test for syphilis and urine analysis were negative. X-ray examination of the chest was negative. The stomach was displaced to the right. X-ray examination of the skull, hip, and end of femur showed a generalized, granular type of osteo-porosis, not typical of Gaucher's disease. A splenectomy was performed by Dr. John de J. Pemberton on April 14, 1933. The spleen weighed 1,450 grams; there were many ad-hesions about it (Fig. 2). The gall bladder was distended but thin-walled and no stones could be felt. The liver was normal in appearance and color but possibly a little larger than normal. Pathologic examination of the spleen showed chronic splenitis, peri-splenitis, malpighian bodies hyperplastic, capillaries dilated, moderate congestion.

Two weeks after splenectomy blood studies



Fig. 2. Spleen removed at operation.

showed 7.9 grams hemoglobin, 4,290,000 erythrocytes, and 11,000 leukocytes. Occasional promyelocytes, myelocytes, and metamyelocytes were found, but no stem cells. A large percentage of monocytes were present, 14.5. Study of the smears indicated that some of these monocytes were immature. Marked poikilocytosis, stippling, and hypochromasia were still present. Platelet counts done directly on the plasma showed the usual marked rise after splenctomy. The count the morning of operation was 81,000, on the eighth day 405,000, on the eleventh day about 2,000,000. The coagulation time of the plasma became very short, but in spite of these findings, there was no evidence of thrombophlebitis. Postoperative platelet counts by the direct method were, however, never higher than \$82,000.

Two weeks after splenectomy, sixty-nine normoblasts were found while counting 200 white cells; five weeks following the operation these cells numbered approximately 40,000 per cu. mm., and then gradually increased to the level of 80,000 per cu. mm. (seven months after extirpation of the spleen). Studies made on Oct. 4, 1933, showed eight grams hemoglobin, 4,530,000 erythrocytes, 4,522 leukocytes, 52,000 normoblasts, erythrocyte volume per cent of twenty-nine, blood calcium eleven mg., blood cholesterol 180 mg. There was a definite left shift of the neutrophils, a few myelocytes were present and the monocytes numbered eleven per cent. The red cells showed marked variation in size and shape, occasional cells with polychromasia and stippling, remarkable distortion of some of the cells with hypochromasia and anachromasia (Figs. 3 and 4). The reticulated erythrocytes numbered seventy-four per cent (Fig. 5). Roentgenograms of the bones taken in February 1934, showed a similar degree of

Fig. 3. Stained erythrocytes seven months after splenectomy, X-1200,

osteoporosis, thickening of the skull and prominence of the medullary trabeculations (pelvis) as compared to the condition noted prior to splenectomy.

Various therapeutic measures, including soluble iron, fetal liver and cholesterol by the oral route were instituted, but the blood picture, except for the signs of increased marrow activity, remained essentially the same for more than a year following splenectomy, at which time our last observations were made. On Jan. 26, 1935, Dr. L. W. Gorham examined the patient's blood and kindly forwarded us the following report:

Hemoglobin 45 per cent (N), red blood cells 3,836,000, white blood cells 10,000. Fragility test—no hemolysis after two hours. A questionable change in the .28 per cent tube after six

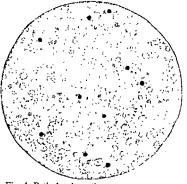


Fig. 4. Reticulated erythrocytes seven months after splenectomy. (Cresyl Violet) X-1200.

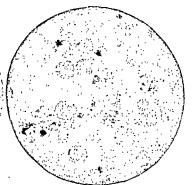


Fig. 5. Stained erythrocytes seven months after splenectomy. Low power.

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hours. Differential count: Eosinophils 0 per cent, basophils 1 per cent, myelocytes 1 per cent, juveniles 8 per cent, stabs 0 per cent, lymphocytes 40 per cent, polys 35 per cent, monocytes 15 per cent. Icterus index 26.4, reticulocytes 7 per cent. Van den Bergh direct—slight positive—delayed, indirect—negative. Bleeding time 5 minutes, sedimentation time 1 mm. (Wintrobe and Walton), erythrocyte volume per cent was 35. 225 normoblasts were seen while counting 100 white blood cells.

Discussion

It must be admitted that cases of this particular type are rarely seen in adults, yet from the clinical aspect, the condition bears some similarity to various so-called entities." The diagnosis "disease chronic hemolytic jaundice is hardly tenable, considering the type of erythrocyte and the increased resistance to hypotonic saline solutions. Furthermore, liver extract in large doses17 and other medical measures failed to affect the anemia, and splenectomy was not followed by the clinical and hemotologic improvement expected in most cases of chronic hemolytic jaundice. Wet smears for sickle cells gave negative information. The erythroblastosis of chronic steatorrhea, described by Bennett, Hunter, and Vaughan,18 may be considered in differential diagnosis but their cases presented abnormal bowel function and pathological stools; furthermore, those patients had no splenomegalia or jaundice

The osseous roentgenograms revealed a granular type of osteoporosis, not definitely characteristic of, any disease entity. In addition, some thickening of the skull, probably due to marrow hyperplasia, was evident. The prominence of the medullary trabeculations, producing the so-called "mosaic appearance,"33 was especially to be noted in the bones of the pelvis. It is our impression that rather similar roentgenologic bony changes may be encountered in a variety of well known clinical conditions. It has been pointed out6,9 that in chronic hemolytic jaundice and sickle-cell anemia, less extensive abnormal bony variations, as compared to the situation in erythroblastic anemia, may occasionally occur. Cooley and his associates4 interpreted the porous appearance in their roentgenograms as representing marrow hyperplasia, whereas in the terminal stages, the pronounced striations indicated, they believed, replacement of exhausted marrow by new bone, as found at autopsies. It is of importance to remember that x-ray information19-23 on the subject of erythroblastic anemia particularly stresses the picture rather late in the disease, or in the more severe cases. Although the striations are rather constantly found in such instances, it is well to recall that in early cases, or in less severe cases, medullary thickening and osteoporosis are the striking features.4,0,33 Some of Vaughan's24 cases of celiac disease showed a normoblastic type of anemia and osteoporosis, but no splenomegalia was present. It should also be remembered that the osseous changes in hyperparathyroidism²⁵ and aleukemic myelosis²⁶ may present x-ray appearances that might be confused with the osteoporosis seen in the early stage of erythroblastic anemia. Chapman's27 second type of osteosclerosis (myelosclerosis) included cases with splenomegalia, myelophthisic anemia and evidence of active hematopoiesis, although there was no evidence of an hemolytic process and his bone roentgenograms showed a moderately increased density but with most of the cortex still evident. The osteolytic lesions of Gaucher's disease might possibly bear some similarity to the condition noted in the patient described, although pathological examination of the spleen revealed no characteristic vesicular cells, presumed to designate Gaucher's splenomegalia as an entity.

The age of the patient, and the fact that prior to splenectomy, he showed, on rare occasions, a white cell count between 4,050 and 5,000, might be legitimately offered as arguments against a diagnosis of erythroblastic anemia (Cooley's type). Cooley²⁸ has not observed leukopenia in this condition and he has stated² that subjects with this disease are not known to reach adult life. Some of the cases observed by Baty, Blackfan, and Diamond⁷ showed no definite leukocytosis and it is noteworthy that similar cases, described as having elevated white cell blood counts actually may not have had, since the nucleated erythrocytes, retaining their nucleus in the acidified white cell diluent, might easily be mistaken for leukocytes and thus serve to give one an erroneous figure for the white cell count.

The morphologic abnormalities noted in the blood bore a striking resemblance to those seen in Cooley's erythroblastic anemia; referring to the latter, Baty, Blackfan, and Diamond declared that such patients present a "memorable blood picture" and more recently detailed cytologic information on the subject has been contributed by Kato and Downey 29 The fact that no very young normoblasts were noted in the smears might argue against of Cooley's anemia, the diagnosis Downey³⁰ thought, although the distribution of the hemoglobin in the red cells is somewhat typical and suggests the condition described by Cooley. The normoblastic crisis, such as our patient presented following splenectomy, is apparently constantly seen in cases of erythroblastic anemia, and, as has been pointed out,216 may last for years. The persistence of the increase in these cells in our adult patient is of considerable interest, although another somewhat similar situation was noted in Stillman's case³¹ for a period of seventeen years after splenectomy. 82

Although it can not be definitely declared that the case described is one of Cooley's erythroblastic anemia, it seems justifiable to regard it as belonging to that group of hematologic disorder, although possibly atypical It must be admitted that one might expect a different blood picture in an adult than one would find in a child, even though both were affected with the same fundamental disorder Again, there can be no serious objection to the possibility that such an infant might survive and reach adult life Whether this patient will later show hematologic improvement cannot

stated although it is certain that no therapeutic measures thus far instituted have had any demonstrable favorable effect on the red cell and hemoglobin levels It is of interest that the reticulocytes and white cell count have, two years after splenectomy, returned to approximately the same figures as were noted prior to the operation. The normoblasts are still considerably increased, as compared to their number present before splenectomy, although they are now hardly as numerous as noted a year ago.

Summary

A case of adult erythroblastic anemia, bearing a striking resemblance to the condition occurring in infants and children, is presented. The clinical features were iaundice. pallor, and splenomegalia Hematologic studies showed anemia with low color and volume indices, decreased erythrocyte fragility, distinctive appearance of the stained red blood cells, elevated icteric index, indirect Van den Bergh reaction, a neutrophilic shift to the left, and a normoblastic crisis persisting two years after splenectomy. Osseous roentgenograms revealed a granular type of osteoporosis, notably in the skull, pelvis, and end of the femur. In addition, the pelvic medullary trabeculations were unduly prominent and the cranial bones revealed definite thickening. All therapeutic measures attempted, including splenectomy, were of no avail in definitely increasing the red cell and hemoglobin levels, and the jaundice persists MFUICAL ARTS BLDG

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CHRONIC LYMPHOID LEUKEMIA WITH A LEUKEMIC PHLEBITIS

H. H. HAFT, M.D., WILLIAM A. GROAT, M.D., AND TYREE C. WYATT, M.D., Syracuse From the College of Medicine, Syracuse University

Recently a patient came under observation (Dr. Haft), who had what seemed to be an acute phlebitis of the femoral vein and part of the saphenous vein, and who subsequently was shown to have a leukemia. The leukemic process appears to have been an etiologic factor in the phlebitis.

Leukemic thromboses have been described, particularly in the sinusoids of the liver and spleen, and in the corpora cavenosa causing priapism, and embolic infarctions have developed from them, and brief mentions of leukemic thromboses in peripheral veins have been made.

We are reporting this case, not because we consider it a new clinical entity, or that it is necessarily rare, but because of its clinical and pathological interest and the possible bearing upon unsettled questions as to the relation of the leukemias to the sarcomata.

Case Report Summary

T.K., age forty-five, single, white, female, seen November 24, 1935.

History: Chief complaint, pain over the internal aspect of the upper right thigh. Duration, one week. Progress, none, getting

Present illness: For a week patient has had discomfort and pain along the inner side of right thigh, with redness and thickening extending straight downward.

No similar swellings or pain elsewhere on the body; or of any trauma to toes or legs. For about three weeks there has been a gradually increasing dyspnea, not disabling enough to prevent simple activities. Appetite rather poor of late. Some palpitation on exertion with swelling of her ankles at evening. Her main concern was the pain, swelling, and redness in upper right thigh.

Past history: Essentially unimportant and no known varicosities of the legs, or any pelvic inflammatory disease admitted. No operations, accidents, injuries, skin eruptions or bleeding.

Brief summary of physical examination: Extreme pallor of skin and membranes. In the upper right thigh there is a tender, red, swollen, indurated mass, evidently the femoral vein. No evidence of involvement of other veins. No evidence of injuries such as abrasions or cuts in lower extremities.

There was extensive bilateral inguinal, axillary and cervical adenopathy.

A large mass, evidently the spleen, extended three fingers below the left costal margin and the liver appeared somewhat enlarged.

Blood count showed Red cells 2,300,000, Hemoglobin 5.5 grams (36%), White cells 425,000. Differential: (200 cells), Polys 3.0, Lymphs 95.5, Lymphoblasts 1.5.

Stained films showed slight achromia, an occasional microcyte and macrocyte; but monocytes, basophils and eosinophils were extremely rare. Most of the lymphocytic types were small, deep staining, with little cytoplasm. The platelets did not appear to

be reduced.

Diagnosis: Chronic lymphoid leukemia;
acute phlebitis of the femoral vein.

The patient was transferred to Syracuse Memorial Hospital for purposes of transfusions and subsequent roentgenological treatment.

While there, in preparation for transfusion, it seemed wise to investigate the nature of the seemingly inflammatory and thrombotic condition in such a large vein because of the possibilities of embolus; so with her consent a biopsy was done by Dr. A. G. Swift, who later did a blood transfusion. Roentgen ray treatment to the spleen followed.

Abstract of the microscopic findings in the vein: Several different blocks were cut from the portion of vein removed at operation. Sections from different blocks presented somewhat different pictures. Lumen of vein in some sections contained a thrombic mass consisting almost entirely of closely packed leukemia cells. This thrombus resembled very much so-called "tumor cell thrombi" frequently seen as a result of infiltration of a vein wall by a malignant tumor. (Fig. 1.). In other sections only the peripheral portion of the thrombus was made up of such cells arranged in a layer which appeared to be closely adherent to the vein wall. (Figures 2 and 3.) The wall of the vein itself showed considerable infiltration with similar leukemia cells scattered among the muscle and connective tissue cells. (Figures 3 and 4.)

Comment

Syphilis of the veins has been described; actinomycosis of veins, secondary to involvement of the liver has occurred in several instances; tuberculosis of the

vems is not a rarity, but proved leukemic infiltration of the wall of a vein resembling a true malignant tumor apparently has not been described in literature

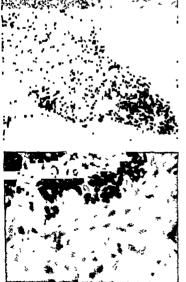
Microscopic findings as described in the biopsy report in the wall and lumen of a large peripheral vein in a case of leukemia are not particularly surprising when the tumor-like character of leukemia cells is considered, and it seems likely that they must occur more frequently than the references in the literature and text books would indicate. In the absence of massive invasion of the vein wall and growth directly into the lumen of the vessel, such as occurs with malignant tumors, the exact origin of the large solid masses of cells in the lumen is not entirely clear. In a case of acute leukemia in a child which was recently studied and will be included in a group of cases soon to be reported by two of us (Wyatt and Groat) there was an unusual finding in the capillaries of the bone marrow, spleen, kidneys and lymph nodes which may have a bearing on the matter of

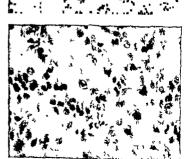
Fig 1 Leukemia cell thrombus in lumen

thrombosis in leukemia in general In that case there was a sudden rise in the number of leukocytes in the circulating blood from a relatively low count to 163,-000 on the second day before death, falling on the day before death to 6,300 In the capillaries and blood sinuses of the tissues named, particularly in the bone marrow, there were found very numerous rounded or elongated clumps of leukocytes, tending to be somewhat fragmented Some of these clumps were quite large and completely filled large capillaries and sinusoids. They did not seem to be in phagocytes. This finding would suggest that in connection with the sudden falls in the number of circulating leukocytes which frequently occur, there may be considerable clumping or agglutination of the lenkocytes in the various capillary fields, and that such clumps if they occlude a sufficient number of capillaries may explain the beginning of a growing thrombus which may reach a vein of considerable size

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Fig 2 Leukemia cells at periphery of





CASE REPORT

SUBCUTANEOUS EMPHYSEMA COMPLICATING LABOR

HAROLD F. HULBERT, M.D., Dansville

The occurrence of subcutaneous emphysema is a rare complication of labor and of sufficient interest to warrant the report of this case.

B. S., primipara, age twenty-four, started in labor at five A.M. June 17, 1935. Pains were poor and progress slow during the first twenty-four hours. She was admitted to the Dansville General Hospital on the afternoon of June 18, at which time the head was engaged but still high in the pelvis, and the cervix was very rigid. As the patient was making slow progress, becoming nervous, restless and using her pains very poorly, she was given morphine grs. 1/4. After several hours rest the pains returned, being much stronger and more effective. She made slow but steady progress, the cervix being much softer and dilatable. At about seven A.M. June 19, I was called to the hospital to see her because of swelling of the face. Her right eye was swollen half shut and the right side of her face was swollen. On pressure the swollen area gave the sensation of crepitation or crackling of air in the tissues. On pelvic examination the fetal head could be felt well down, position left occiput anterior with the cervix fully dilated. The fetal heart sounds were 120, heard best in the left lower quadrant. Under ether anesthesia the baby was delivered with forceps. A second degree tear of the perineum was repaired. The baby weighed 834 pounds and breathed poorly at first but responded favorably to insufflation of carbon dioxide and oxygen. The placenta separated in forty-five minutes and was expressed by the Crede maneuver with some difficulty. The duration of labor was, first stage fifty-two hours, second stage three hours, third stage forty-five minutes. There was only a moderate amount of hemorrhage during labor.

The patient had to be catheterized for the first twenty-four hours following delivery. The swelling spread during the next twelve hours so that both eyes were nearly swollen shut. Both sides of face, neck, anterior chest and shoulders also were swollen, giving a very grotesque appearance. For the first twenty-four hours the temperature varied from 100.2 to 101.2 rectal, pulse 100 to 136, and respirations 22. The temperature never went any higher than 101 rectal and dropped to normal on the third day. The pulse remained rapid 110 to 120, gradually quieting down about the fifth day to 90 and remained

within normal limits thereafter. There was no organic heart murmur, irregularity or evidence of pre-existing heart disease. Examination of the lungs showed no evidence of pulmonary disease. No rales were heard in the chest. She complained of only slight pain, a feeling of tension in the tissues, shortness of breath, and a feeling of anxiety. There was no discoloration or cvanosis of the swollen area. An x-ray of the chest was taken immediately after delivery and showed air in the subcutaneous tissue of chest and neck, but no evidence of pneumothorax or pathology in the lung. There was no evidence of bone injury of the chest wall. The swelling began to subside on the third day and was completely gone on the seventh day.

Her past history was essentially negative. She had visited the office at regular intervals during her pregnancy and at no time did she show any indication of complication. Blood pressure and urine analysis were normal throughout. Pelvic measurements, intercristal diameter twenty-eight cm., intertrochanteric diameter thirty cm., interspinous diameter twenty-four cm., external conjugate diameter eighteen cm.

Convalescence was uneventful except that on the tenth day she developed some tenderness along the left femoral vein, no edema, temperature 100. This subsided within a week and recovery was complete for both

mother and baby.

Subcutaneous emphysema in labor is a rare occurrence. Reckett⁴ in 1922 reporting a case stated that in fifty years practice, twenty-five years of it in the British army including charge of hospitals for soldiers wives at home and abroad, he had never encountered a case previously. Charbonnet⁵ in 1925 in reporting a case stated that he had never heard of a similar case. The condition was first reported by Simmons in 1783. Kosmak⁶ in 1905 in reporting a case made a review of the literature and was able to find seventy-seven cases reported up to that time. Gordon1 reported two cases in 1927 and made an extensive review of the literature and was able to find record of only one hundred and thirty cases in the entire medical literature up to that date. There have been about a dozen cases reported since then. Maroney2 reported a case in 1933.

Subcutaneous emphysema complicating labor usually occurs in primiparae, although

it has occurred in multiparae. No previous pathology or history of pulmonary lesions have been found in the majority of cases. For the most part it has occurred in healthy, strong, normal women with no previous complication. The condition usually comes on in the second stage of labor, but sometimes occurs in the first stage and in some cases has occurred following the delivery. Dystocia with a long hard labor, especially a prolonged first stage with hard expulsive efforts, seems to be the usual history in the majority of cases. Only a few have been comparatively easy deliveries, so that it is believed that dystocia due to rigid cervix, disproportion, contracted pelvis, dry labor,

etc., is a definite causative factor. Undoubtedly in the violent expulsive efforts of labor with the associated deep breathing and holding of the breath the air passages, trachea, bronchi and pulmonary alveoli are under great pressure. Some believe the escape of air might occur from rupture of a pulmonary alveolus with passage under the pleura to the base of the lung, opening a path through the sheaths of the great vessels, infiltrating the mediastinum and following the vessels to the trachea into the neck from where it finds its way into the cellular tissues of the face, neck, and chest. Gordon stated in his paper that the trachea may rupture as occurs sometimes in whooping cough with the escape of air into the tissues. Some observers believe it may be due to rupture of the nasolacrimal duct. Viana7 cites a case which he believes might have been due to such a phenomenon. Only clinical deductions are possible as but two cases in the literature terminated fatally and only one of these came to autopsy which

showed ruptured pulmonary alveoli. Little or no experimental work has been done.

The swelling appears first on the face and neck and may extend down to the chest, shoulders, and arms, and infrequently to the abdomen and remainder of the body. On palpation the swelling gives a characteristic feeling of crepitation or crackling of air in the subcutaneous tissues. There is usually no discoloration, redness or cyanosis. Pneumothorax was not reported in a single case. The chief subjective symptoms are a feeling of tension, occasionally pain, some difficulty in breathing, a choking sensation, difficulty in swallowing, stiffness, cough but rarely aphonia. The patient seldom complains of much discomfort and does not usually appear very sick. The temperature may or may not be elevated. The pulse is usually accelerated. Only a few cases have had marked dyspnea and respiratory dis-

The prognosis has been good in the cases reported. No special treatment is neces-However in cases in which the emphysema is becoming worse or eyanosis and respiratory distress are present, the patient should be delivered without delay. The condition usually clears up in from five to fourteen days.

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THE AUXILIARY "HORBY SHOW"

The Woman's Auxiliary to the Medical Society of the State of New York, of which Mrs. John L. Bauer is President, will hold a "Hobby Show" in conjunction with the Annual Meeting of the State Medical Society, at the Waldorf-Astoria Hotel, from April 27 to 29. Any county within the State which shall have a Woman's Auxiliary may exhibit. We shall be pleased to exhibit the hobbies of the Doctor or his wife, which may include anything.

Will each exhibitor please observe the

The March issue of the Radiologic Review and Mississippi Valley Medical Jour-nal (Quincy, Ill.) is the ninth annual "Radium Number" of that publication. It is entirely devoted to Radium, containing ten original articles, especially written for this issue by leading American radium

following rules: 1. Give each exhibit a "Title." 2. Label each exhibit with the owner's name and home address. 3. Place a money value on each exhibit and this statement must be signed by the owner. 4, Please deliver and call for all exhibits on the days, and at the place the committee shall specify.

The committee is asking your hearty cooperation in making this first "Hobby Show" a huge success. For any further details please call or write to Mrs. Edwin A. Griffin, General Chairman.

therapists on various phases of radium therapy. There are contributions by Jones of Cleveland, Schreiner and Wehr of Buffalo, Soiland of Los Angeles, Murphy of Minneapolis, Fox of Dallas, Levin and Sittenfield of New York, Swanberg of Quincy, Simpson of Chicago, etc.

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B. LIBER, M.D., DR. P.H., New York City

Editorial Note: Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

Impending Danger

A woman of twenty-four, married three months, complains of being "run down." She believes she has cancer because her mother died four months before of cancer. She is slim, much underweight, probably due to fear of food. She thinks she must diet herself in order to avoid her mother's fate. Nothing abnormal is found physically, which she is told in the friendliest, but most emphatic and convincing manner. She is told what cancer means and that her mother's condition will not necessarily bring about a similar state in her daughter. The need of more food and more nourishing food is accentuated.

Within a short time this patient actually gains some weight and improves all around. But a few months later, being away from the doctor and his influence, she falls back into her old fear of cancer and avoidance of food. She is also restless, unhappy, and cries much. This time her conversation suggests some mental disturbance, which soon, after a few sessions, unfolds itself clearly. One may call it a situation neurosis or, since it is not a characteristic symptom complex, it may be left nameless; it is best to leave it so and not allow it to develop.

Her husband is sexually indifferent and although intercourse takes place from time to time, at comparatively rare intervals, it is performed in a prosaic, and to this patient, in an unpleasant and unsatisfactory way. Something new, however, comes to gradually replace the necessity for the sexual act. The husband's sister, single and older than the patient, is flirting with her more and more and attracting her attention to a novel gratification. At first, the patient is astonished. She had never heard of such things. Kissing and embracing between the two women become frequent, although the

patient seems to dislike it. Then, one day the seducer takes her victim to a theatre show where such relations between women are clearly expounded on the stage. This has the effect of authoritative conviction and the patient submits now without muttering to the caresses of her female sweetheart. But not for long. After a while she cannot endure it and comes to see the doctor again. Not that she had failed to consult physicians, always believing that somebody will give her a more direct and more drastic remedy—a "medicine" she says—than "mere talks." The other doctors, hearing her complain about "gas, indigestion, sleeplessness" and similar symptoms, searched honestly, but, not going deeper into the problem, failed to help her.

The situation is finally this:

The husband, being unsatisfactory, has caused his wife, who is naive and of average intelligence only, to accept homosexual love. But the latter is repulsive to her and, what is more, even less gratifying than the weak heterosexual activity. As the patient has schizophrenic tendencies which, under unfavorable conditions, may change into a real psychopathic trouble, she begins to feel "uncomfortable in crowds where her sister is present" and later "uncomfortable in crowds" anywhere.

A frank eye-opening talk with the husband helps to improve the condition immensely. Also meeting his sister and telling her how much she is contributing to an impending disaster, makes her leave the city.

The result, several months later, is still good. The patient, now pregnant, is happy, talkative, and dreaming about the future.

611 West 158 St.

A BULLSEYE

A telling spear-thrust at state medicine is delivered in three crisp sentences by Dr. Oscar H. Bohm in the Yonkers Medical News:

"The Complaint in this country is not with the quality of medical care but with the inability of a considerable portion of the

population to purchase same. The same difficulty exists with respect to food, clothing and sanitary housing. Obviously the remedy is to increase the purchasing power of labor rather than lower the standards of medical service and demolish the economic opportunities of the physician."

Special Historical Article

THE MEDICAL HISTORY OF SCHENECTADY COUNTY

ELLIS KELLERT, M.D., Schenectady

Christopher Columbus made four voyages to the new world and an account of the second voyage was written by Doctor Chanca, physician to the fleet. On that first glorious adventure across the "sea of darkness," there was no medical attendant but the second expedition was more carefully planned, much larger and had colonizing aims. Doctor Chanca was thus in the year 1493, the first physician to visit America, having left Cadiz, September 25, 1493, and landed in the new world November 3, 1493, on an island not previously visited by Columbus. He described minutely the land, vegetation, and inhabitants; the journeys into the interior, and the astonishment of the natives at the sight of the Spanish vessels. We thus have from the pen of a physician a record of one of the most important events in the history of civilization.

One hundred and thirty-eight years later, in 1631, a physician from Holland landed at New Amsterdam, journeyed up the Hudson to Fort Orange, the present Albany, and from there, with two companions, explored the Mohawk valley as far as Oneida. He made the journey during the winter months and the account of that exploration in his own handwriting was discovered in 1895 in Amsterdam, Holland. From that document, we learn that Harmen Meyndertsz Van den Bogaerdt, surgeon to the ship, Endracht, left Fort Orange in December 1631, with Jeronimus de la Croix and Willem Tomassen. These three kindred spirits set out on foot to explore the Mohawk valley; traveled up the river about 120 miles and we like to think that their first bivouac was in Schenectady, then, of course, a primeval wilderness. This event was years before Van Curler paid his first visit to the Schenectady area and reported it as a "most beautiful land."

The Van den Bogaerdt journal is the earliest written description of the Mohawk valley and is of such interest that parts of it are here given as translated. The journey was made because of the reports that the French Indians had made a truce with the Maquas and also a trade agreement, and that the Maguas wanted as much for their animal skins as did the French Indians. The journey began December 11, 1631, and the next day, starting out three hours before

daybreak, the explorers proceeded on a breakfast of dry bread, for the dogs had eaten their meat and cheese. They marched on and stopped at an Indian castle at one o'clock in the evening, only because they could no longer move their feet. On December 13, they arrived at a castle where there were bark houses arranged in rows like streets and where they saw iron hinges, nails, chains and hoops. The chiefs had isolated themselves because of the presence of smallpox; but one, named Andriochten, came, in response to a message, and bade them welcome. They are cooked venison and "in the evening Willem Tomassen, whose legs were swollen from the march, had a few cuts made with a knife therein and after that had them rubbed with bear grease."

December 14, "went to shoot turkeys with the chief but could not get any. This chief showed me his idol; it was a male cat's head, with the teeth sticking out; it was dressed in duffel cloth." On December 16, they ate beaver meat with the famous hunter, Sickarus, who had 120 beaver skins for sale.

December 17, the Indians showed them sulphur which they believed good against

many maladies.

December 20 .- "they lent me this evening a lion skin to cover myself; but in the morning I had more than a hundred lice." On December 22, they visited more houses filled with corn and beans and were objects of great curiosity to the savages. December 23, "bought some bread baked with nuts and cherries and dry blue berries and the grains of the sunflower."

December 24. "It was Sunday. I saw in one of the houses a sick man. He had invited two of their doctors that could cure him-they call them simachkoes; and as soon as they came, they began to sing and to light a big fire. They closed the house most carefully everywhere, so that the breeze did not come in and after that each of them wrapped a snake-skin around his head. They washed their hands and faces, lifted the sick man from his place and laid him alongside the big fire. Then they took a bucket of water, put some medicine in it and washed in this water a stick about a yard long, and kept sticking it in their

throats so that no end of it was to be seen; and then they spat on the patient's head and all over his body; and after that they made all sorts of farces, as shouting and raving, slapping of the hands; so their perspiration ran down on all sides." Note the detailed record of this medical procedure. How agreeable it would be if in these days the doctors, in treating cases, would themselves take the hypodermic injections.

December 25.—They could not march because of the snow and lack of help to carry their goods. December 27—stopped at a little cabin in the woods where it was so cold that he slept only two hours. December 30—went to the Sinnekens castle where they saw many scalps. The houses there had fronts painted with all sorts of beasts and the natives slept on elevated boards. Dried salmon were hanging in the houses. January 3-"Some old men came to us and told us they wanted to be our friends, and they said we need not be afraid. And I replied we were not afraid, and in the afternoon the council sat here—in all, 24 men—and after consulting for a long while, an old man approached me and laid his hand upon my heart to feel it beat; and then he shouted we really were not afraid at all."

January 4—"Two savages came, inviting us to come and see how they used to drive away the devil." January 10—"Jeronimus burned the greater part of his pantaloons, that dropped in the fire during the night, and the chief's mother gave him cloth to repair it, and Willem Tomassen repaired it." On January 12, they departed with their accumulated beaver skins. On January 15, for some reason he could not make a fire and was obliged to walk the whole night to keep warm.

On January 21, 1632, these explorers returned to Fort Orange and reported what they had seen. It is quite possible that this report subsequently came to the attention of Van Curler and led to the founding of Schenectady in June 1661 by Van Curler and fourteen others who bought the site of Schenectady from the Indians by the payment, in 1672, of "foure hundred hands of wampum, 30 barrels of lead, 3 bagges of Powder. More for a present, 3 ankers good beere, one koatt duffels, together with the above mentioned rundlet of brandy."

The original name was Schau-naughta-da, which in the Iroquois language meant "over the pine plains" and was probably the Indian name for Fort Orange, the present Albany. This fact should be borne in mind, for if the three large cities in this area should ever merge into one supercity, then the logical name for the new metropolis would be Schenectady. It was in 1753

that the Rev. Gideon Hawley visited Schenectady and referred to it as a town in some respects similar to Albany and very pleasant. Little is known of the subsequent activities of Van den Bogaerdt except that he remained in the colony and was probably the first surgeon to practice in New York City. He also was commissary to the fort at Albany in 1633, and is said to have been killed by the Indians. He was an irritable man and had no respect for authority, for he once attempted to throw the directorgeneral of the colony out of a boat on the Hudson river. Van den Bogaerdt had a son, Frans, born in 1640 who was killed in the Schenectady massacre of 1690, and a grandson, Frans, Jr., killed in the Beukendaal massacre of 1784. His descendents still live and practice medicine in Schenectady, 304 years after that first memorable tour, surely a unique record in American history.

In 1773, there died in Schencetady Dr. Richard Shuckburgh, author of the verses of Yankee Doodle, written in 1758, at Fort Crailo, Rensselaer. Shuckburgh was born in England and served as an officer in the British army. After the French and Indian wars, he was made secretary of Indian affairs by Sir William Johnson and resided for a brief period in Detroit after which he

came to Schenectady.

Even in the early days, New York was the leader in medical legislation. In 1760, the state or colony required a medical candidate to satisfy a commission as to ability and in 1806, all candidates were obliged to undergo four years' apprenticeship, included in which could be a year in a medical school or college. There were then thirty-five county medical societies and they were authorized to conduct examinations and license physicians. Schenectady county was formed from Albany county March 7, 1809 and under the legislative enactment of 1806, the Medical Society of the County of Schenectady was organized and the first meeting held June 11, 1810 in the Court Room. A constitution and set of by-laws were adopted, from which the following interesting items are taken: The initiation fee was one dollar and dues two dollars, payable quarterly. For non-attendance at regular meetings a fine of one dollar was levied. Members were enjoined from holding any nostrum or specific for the cure of a disease under penalty of forfeiting his seat. Thus, there was an early attempt to control unethical advertising.

At the meeting held September 11, 1810, "Joseph F. Yates presented himself as a candidate for the Practice of Physic and Surgery and was immediately examined on the various branches of medicine and was

found sufficiently qualified for the Practice of same and therefore admitted." He thus became the first physician to be licensed by

the County Medical Society.

The first officers of the Society were: Archibald II. Adams, president; Wm. Anderson, vice-president; Alex G. Fonda, secretary, and Corns. Vrooman, treasurer. Meetings were scheduled to be held quarterly but there were long periods when none were held. At the anniversary meeting of June 9, 1835 an amendment to the by-laws stated that at the meeting one year after his election, the president shall "Deliver to the society a dissertation upon some appropriate subject", a custom which still prevails.

Meetings were held most often in the city but occasionally in the outlying towns at the homes of the members. Usually there was a dinner followed by the business and scientific sessions. What marvelous discussions they must have had for none knew much about scientific medicine and each considered his own theories correct and his remedies curative. They were vigorous, outspoken men and cared little about the other fellow's feelings when in scientific debate. Many of these men were born psychologists and realized the value of the positive and assured bed-side manner. When, however, a similar attitude was adopted toward their confreres, violent antagonisms arose for each knew the limitations of the others. In fact, unofficial records refer to occasional physical combat. This must have been very disturbing to the society for the attendance diminished and in 1836, Dr. Prime, secretary, notes "when the members gathered together, not enough staved long enough to form a quorum; after an hour of waiting the officers retired." The internal dissensions became so serious that in 1841, meetings ceased for a period of twenty-eight years. At that time, there was considerable discussion as to whether a certain doctor had not obtained his diploma fraudulently.

The society was reorganized January 19, 1869 and a new constitution, set of by-laws and code of ethics adopted. Those who reorganized the society were A. M. Vedder, L. Ellwood, J. D. Jones, C. Hammer, Q. Fuller, W. D. Cheesman, B. Mynderse, G. Van Voast, W. Duane, Meetings were held not only in Schenectady but in Duanesburgh, Quaker Street, and Pattersonville. social phase of the meetings must have been greatly enjoyed for an early minute states that "The society then repaired to the din-ing room of Dr. Ennos when a collation was served which the society seemed to appreciate by the very satisfactory manner in which this order of business was

despatched."

Many members were elected in the years that followed. In 1873, the first move toward a county medical library was made, for the society appropriated \$25.00 for medical and surgical journals. In the same year the fee bill was revised and it was resolved "that hereafter it will be considered as a demeanor on the part of any member of this society who shall receive a student of medicine in his office who does not present previous to beginning his studies a certificate from the censors of the society certifying to his possession of a proper preliminary education and qualifications." There was thus in vogue the very valuable system of precentorship which was recently abolished in a furore of reform in medical education but the virtues of which are again realized and in a measure to be restored.

Few formal papers were read at the meetings and apparently seldom by outside physicians. Case reports were presented and we find recorded, cases of embolism, tracheotomy, diphtheria, intestinal obstruction, puerperal septicemia, and the use of the new antipyretics. It is interesting to note how this type of practice has largely disappeared. In 1883, the society voted that the city physician and the health officer were inadequately paid. In 1885, a request from the Society for the Care of the Insane was received asking that a committee be formed to report on the care of the insane in the county. There must have been some criticism of the care of mental cases for it was in 1861, that a brick addition to the west side of the poorhouse was erected for the care of the insane, at a cost of \$3,000. In 1886, it was voted to issue a "dead-beat" list and so it appears that medical economics at that time presented problems quite similar to those of today.

Although he was not a practicing physician in Schenectady we cannot refrain from special mention of one who was born and educated here and subsequently acquired an international reputation by virtue of his accomplishments. Dr. Theodric Romeyn Beck was born in Schenectady August 11. 1791, one of five sons, two of whom were physicians. He graduated from Union College in 1807 at the age of sixteen and studied medicine in New York City under the famous Dr. David Hosack. Beck married at the age of twenty-three and a year later was made Professor of the Institutes of Medicine and Lecturer on Medical Jurisprudence in the College of Physicians and Surgeons for the Western District of New York, located at Fairfield in Herkimer County. When not lecturing at the school, he practiced in Albany. He gave up practice in 1817 and became principal of the Albany

Academy. In 1829 as president of the State Society, he delivered an address on "Medical Evidence" in which he urged the appointment of trained and experienced medical men to perform postmortem examinations. In a subsequent address he urged the special study of pathology, anatomy, and chemistry and pointed out the falsity of many medical theories. His last annual discourse dealt with the subject of smallpox and he, most vigorously, urged compulsory vaccination. Beck is best known for his book on Medical Jurisprudence, first work of its kind in English and published in 1823. This work ran through ten editions and was translated into many foreign languages. For years it was the authority on medical jurisprudence and gave to Beck world-wide renown. In it was a chapter on infanticide by his brother John, also an eminent physician.

Small-pox, yellow fever, and cholera were the great decimators of the day. Water was suspected to be a vector of contagion and there were crude attempts at public hygiene. In the old days there were public and private wells and officials known as well masters were appointed and "strictly enjoined to see to it that no water is poured out near the wells and that no rinsing is done there in the space around the wells which is to be paved." Apparently, carelessness and indifference on the part of a few individuals led to early restrictive laws and the appointment of these first public health officials in October 1679. Subsequently additional laws were enacted such as those relating to the throwing of filth into the streets.

In 1826, the county poor house was opened and Dr. John La Tonelier appointed physician at an annual salary of seventy-five dollars.

Schenectady was incorporated as a city April 29, 1833, and in that year the office of city physician was created. He was health officer of the Board of Health and required to render surgical aid and assistance to all indigent persons within the city and to keep himself supplied with kine pock matter for the indigent.

The drinking water in the settlements was generally polluted and consequently much beer and wine were consumed. It was realized that water close to habitations bore some relation to intestinal disease, and yet simple methods of purification were neglected. In 1832, the medical fraternity of the city lost a golden opportunity to acquire great fame for in that year Chester Averill, A.M., wrote an open letter to Mayor John I. De Graff, in which were presented "Facts regarding the disinfecting Powers of Chlorine with an explanation of the mode in

which it operates and with directions how it should be applied." At that time chlorine was recognized as "the most powerful agent hitherto discovered to counteract contagion and all kinds of noxious effluvia and its sanatative powers appear equally extraordinary." "When it is desirable to purify the water of a cistern—dissolve 8 ounces of the chloride of lime in a pail full of water and disperse it into the cistern."

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What an unfortunate circumstance that this letter was not seized upon by the doctors of the city and the method urged in the interest of public health. Had this been done, many thousands of deaths from intestinal infections would have been avoided, and the Hudson and Mohawk valleys would have missed the unenviable reputation for typhoid fever, which was so prevalent in the latter part of the nineteenth century. Averill's letter was published as a pamphlet by Isaac Riggs and appears to be the earliest reference in the American literature on the chlorination of water, a method which became popular in recent years and is now universally employed. It was in 1896 that George W. Fuller first applied chloride of lime to the raw water flowing over experimental sand filters in Louisville, Kentucky.

In 1832, Asiatic cholera, prevalent in Canada and the colonies, visited Schenectady. As might be expected from the character of the water supplies, it proved particularly deadly and funerals "took place almost hourly for a considerable time." The old brick college building was fitted up as a temporary isolation hospital and the health officer, Dr. Tonelier, assisted by Drs. Mc-Dougall, McGriffin, and Toll, attempted to combat the epidemic. Not knowing the cause or mode of spread of the disease, they accomplished little; but what a different story would be told, had they followed Chester Averill's suggestion and used chloride of lime in the well waters. Soon, however, nature proved the best ally for with the approach of frost and the consequent freezing of the ground, pollution of the wells ceased and the epidemic faded out.

In 1868, Wm. J. McAlpine, C.E., rendered a report to the water commissioners on the advantages of a public water supply. He wished to abolish the cisterns and wells, claiming that a better quality of water in the form of a public supply would be possible and money saved to the community by abolishing disease. Subsequently, a water company was formed and water taken from a spring and conducted through wooden pipes which were simply logs with a three inch hole bored through them. In 1869, as a result of the citizens voting down a municipal water works, a new company was

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formed and water taken from the river was filtered by the Holley system and supplied to the city. It was only in 1872 that hydrant water for extinguishing fires became available. The water, although abundant was highly polluted and considerable typhoid

fever prevailed in the city.

The present water works at Rotterdam were established in 1895 and an adequate supply of pure water of high sanitary quality supplied to the city where water-bourne disease is now unknown. In 1914, an equalizing reservoir with a capacity of 20,000,000 gallons was constructed. About 15,500,000 gallons of water are pumped daily, the water coming from a gravel bed underlying the valley, and estimated to contain sixty-three billions of gallons of water, primarily that of rainfall.

The largest medical institution in the county is the Ellis Hospital, which opened March 27, 1893 in a building on Jay Street, but now demolished. Originally a small institution, built with a bequest by Charles G. Ellis of manufacturing fame in the city, it received its first considerable endowment from a physician, Dr. Robert Fuller. Prior to the founding of the Ellis Hospital, there existed a smaller institution, called the Schenectady Hospital and Free Dispensary. These two organizations merged under the name and control of the Hospital Association of the City of Schenectady. The present building, under the management of this association, was opened October 13, 1906 and the original thirty bed hospital has developed into an institution containing 285 beds, a nurse's training school, extensive laboratories, x-ray and physiotherapy departments and specialized clinics of various kinds, treating over 7,000 in-patients and 12,000 outpatients annually,

The Glenridge Sanatorium, devoted to the care of tuberculous patients, was established in May 1908, and consisted of tents erected on the present site of the Maqua Company building. It was then known as the Red Cross Day Camp. In November 1909, the camp was moved to Craig near Aqueduct when it was taken over by the county. In 1911, it was moved to its present site and

consisted of crude wooden buildings. The present elaborate modern institution was erected in 1929, a fine testimonial to the health consciousness of Schenectady County residents. It contains 132 beds and is perfectly appointed for its type of work,

The city hospital for contagious diseases is an institution of thirty-six beds and was first organized in 1906 and enlarged in 1926. It is conducted on the cubical plan and well-

equipped for cases of contagious disease.

The Physicians Hospital was organized in 1907, and in 1913 taken over by the Sisters of Mercy, who renamed it Mercy Hospital, but the following year it was transferred back to the original association. This hospital accommodated thirty patients and had a capable staff and managers, but was closed in 1916.

Dr. Janet Murray was elected to membership in 1893, and thus became the first woman to join the society. Dr. Murray still graces the meetings with her presence.

Schenectady contributions to medical science were practically dormant from the time of Beck to the present era, when the great research laboratory of the General Electric Company was established. Bedside discoveries ceased many years ago, and advances in medicine are made chiefly by aids to the special senses. One of the most important of these methods is the x-ray, and medicine is greatly indebted to the inventions and discoveries of Dr. W. D. Coolidge for enabling us to see more clearly what takes place within the body in diseased conditions, and for effective equipment for successfully treating malignant tumors; to Dr. Willis R. Whitney for the development of fever-inducing machines to combat the ravages of infectious disease: to Dr. Irving Langmuir for better types of lamps with which to peer into the body cavities and to vield health-producing ultraviolet light; to Dr. L. T. Robinson, for the development of a portable electrocardiograph. These men. like Pasteur, are not physicians, but they give us tools which enormously enhance the good that doctors may do, and they are part of the medical history of Schenectady County.

AN INTERNATIONAL COMPLIMENT

A dispatch from Melbourne, Australia, tells us that international cooperation and good-will soon will enable a three-year-old Melbourne boy who swallowed a packing nail with a large head to visit America for treatment.

Two operations having failed to dislodge the nail from the boy's lung, Professor Chevalier Jackson of Temple University,

Philadelphia, has agreed to operate free of

charge,

United States Government waive immigration laws to allow the boy and his mother to remain as long as necessary, the Roosevelt Line of New York is providing free passage to America and return and a Melbourne philanthropist is paying all incidental expenses.

STATE JOURNAL

OF MEDICINE

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EDITORIALS

The Annual Meeting

The Annual Meeting is almost at hand, offering to physicians the state over an opportunity to combine graduate study with relaxation and amusement. The session which will open at the Waldorf-Astoria Hotel in New York City on April twenty-seventh promises to rival the most brilliant conventions of the past in its wide range of intellectual and social interests.

The modern medical meeting cannot rest on its scientific program alone. Social and economic trends have an enormous influence on the conditions of practice and physicians must continually reorient themselves in relation to changing forms of government and community life. This has never been more true than today. when ill-advised social theories and bureaucratic tendencies threaten the very existence of the private practitioner. In such circumstances it is imperative that the profession appraise its position each year and reaffirm or revise its policies in accordance with the dictates of its fundamental interests.

The program for the Annual Meeting of the State Society gives due consideration to all these factors. A series of carefully chosen papers will survey the various branches of medicine, evaluating new methods and reporting authentic new data. These formal presentations will be supplemented by exhibits illustrating timely points in theory and procedure. At the executive sessions many problems directly affecting the course of practice and the welfare of the practitioner will be considered and policies adopted for the forthcoming twelve months. The membership will have an opportunity to review past activities and help shape future ones, in conformity with the democratic principles of the State Society.

Bearing in mind that this is a vacation as well as a study course for many busy practitioners, the Committee on Arrangements has not neglected the social aspects of the session. The Annual Dinner and a number of other events provide occasion for convivial diversion at the meeting, with all New York at hand for those who desire more mundane amusement. Members who have not yet made their reservations should immediately do so, as there is every indication of a banner attendance.

Syphilis Control

In a current article, which is a report prepared in cooperation between the Social Hygiene Committee of the New York Tuberculosis and Health Association, the Commissioner of Health of New York City, and Dr. Jacob A. Goldberg, there is much that must make thoughtful physicians ponder. If the report is correct in estimating that five per cent of the population of the United States have syphilis at a given time, and of this number only one tenth have medical care, there is here

presented a problem whose intense seriousness cannot be overestimated.

Nevertheless, the report seems to indicate that private physicians play but a small role in the syphilis control thus far.

Our purpose in calling attention to this report lies in the fact that it is a factual study of conditions solely. We await suggestive comments as to what we are to do about it. Constructive corrective measures are desirable, and organized medicine will cooperate to cope with the situation reported.

In this regard, attention is again directed to an illuminating article in our JOURNAL of March 15, (page 451) containing the report of a subcommittee on Public Health Relations of the New York Academy of Medicine. Here possibilities of control, and the organization of treatment facilities are discussed.

Law with Justice

Two bills sponsored by Senator Kleinfeld promise to remove the opprobrium which now attaches to the determination of insanity in criminal actions. Senate Introductory No. 1399 authorizes the judge to appoint a disinterested commission of investigation whenever a plea of insanity is made or there is reason to suspect mental infirmity in a defendant. A corollary act—Introductory No. 1534—provides for the certification of psychiatrists qualified to participate in such cases.

The need for legislation of this type is patent and great. At the present time the plea of insanity is a trump card which unscrupulous attorneys produce whenever the case against their clients is too strong to be broken by other means. A shyster lawyer can always find a quack doctor to back him up; and reputable members of both professions are helpless and ashamed before the resultant travesty of justice.

Introductory No. 1399 removes the important question of sanity from the realm of opportunitism. If it is adopted this issue will no longer be admissible in the emotional atmosphere of the courtroom but will have to be settled in advance. A defendant who is really insane will be

spared the strain and anguish of trial. The mentally sound will have to assume responsibility of their acts.

In the long run a law of this type can be no better than the psychiatrists who help administer it. To ensure competence and integrity in testifying alienists, the second Kleinfeld bill sets standards for psychiatrists and provides for the certification of those who satisfy the prescribed requirements. This would prevent self-styled experts of no particular training or experience from exploiting the issue of mental soundness and discourage the prostitution of professional judgment.

For many years organized medicine has pointed out the flaws inherent in the juridicial determination of insanity under the present laws and has urged appropriate reforms. The Kleinfeld Acts offer an effective and practicable remedy. The Bar Association should join with the official medical societies in support of these bills.

Floods, Water Supply, and a Suggestion

The recent floods upstate have presented the officials in charge of the water works of the various communities affected with a serious problem in preventing the spread of water-borne diseases. Thanks to the foresight of the State Department of Health a warning was issued in advance that floods could be expected when the large amount of accumulated snow and thick ice in the rivers and streams throughout the state began to thaw. The necessity for placing the filtration and chlorination plants in first class condition was urgently stressed in order that the expected threat to the water supply could be met quickly and adequately.

It is appalling to reflect upon what might have happened had this precautionary advice not been forthcoming. The suddenness of the tragedies in various localities would have added epidemics of disease to the enormous loss of life and property. It would have taxed the medical profession in affected areas to properly cope with the unexpected increase in the number of sick people. As it happily

turned out, the water-works officials heeded the advice of the Health Department and were prepared for eventualities.

Different cities and villages were each presented with different problems. In some, pumping was discontinued and the reserve water supply was drawn upon. In others, the turbidity of the water necessitated bypassing the filters for several hours. In all areas which were affected by the rising waters, the chlorine dosage of the drinking water was increased heavily so as to counteract pollution. In addition, the inhabitants of the stricken areas were instructed to boil the water before drinking

What the medical profession has done for the community at large in the field of preventive medicine it desires to perform for the individual. It is to be hoped that the time is not far off when disease in the individual can be prevented as effectively as disease in a community. Were the individual as cooperative as the community in which he lives, preventive medicine would make far more rapid strides than hitherto. While it is true that the functions of the Health Department are directed toward the preservation of the health of the people in a broad sense. we believe that the influence of this official body would go far toward popularizing the importance of periodic health examinations. The money spent by the State in informing the public, through the medium of newspaper advertisements, of the value of milk as the great "alkalizer" and pick-me-up for the "morning after" would be put to much better use in disseminating the value of medical examinations at regular intervals to the end that morbidity may be reduced to a minimum.

Pathogenesis of Actinomycosis

The pathogenesis of acrinomycosis is one of the uncertainties of medicine. The etiological factor is known to be the actinomyces of the Wolff-Israel type. Organisms of this variety have never been demonstrated as existing outside of the human or animal body and it is ex-

tremely doubtful that they propagate in the outside world under ordinary conditions.

Since the most common site of actinomycosis is the region about the head and neck it seems but natural that the buccal cavity should be suspected as providing the portal of entry. This view is further substantiated by the frequent occurence of abdominal actinomycosis. On this assumption, the flora of the normal mouth was studied by Lord1,3 and Naeslund² with the idea of isolating the Wolff-Israel type of actinomyces. Both succeeded in obtaining organisms which bore a close morphologic and cultural relationship to the causative agent of actinomycosis. In addition, each was able to produce in animals, by the inoculation of these organisms, actinomycotic lesions which showed the typical club-bearing granules characteristic of this lesion.

Lord and Trevett,3 in attempting a recheck upon the work of Naeslund as well as their own, again were able to isolate these organisms from the tartar about the teeth and from carious cavities in the otherwise normal mouth. This time, however, the cultural characteristics were different from those of the Wolff-Israel type in that the former were both anaerobic and aerobic whereas the latter is an Nevertheless, these observers feel that Naeslund definitely has established the fact that actinomycosis originates from organisms which are normal inhabtiants of the mouth. Confirmation is needed only to determine whether the cultures isolated by them are in reality the Wolff-Israel actinomyces. They believe that trauma to the tissues of the mouth or intestinal canal may be the motivating factor in these bodies gaining entrance to the surrounding structure and establishing their characteristic pathological lesions.

There also remains to be determined the role played by other organisms as syner-

^{1.} Lord, F. T.: J. A. M. A., 55:1261, 1910. 2. Naeslund: Acta Path. et Microbiol. Scandanav., 2:110, 1925. 3. Lord, F. T. and Trevett, L. D.: Infect Dis., 58:115, 1936.

gistic agents in the production of this disease. The growth obtained by Lord and Trevett would seem to resemble old cultures of the Wolff-Israel actinomyces. It seems possible, from their latest report, that under anaerobic conditions the Wolff-Israel type may adjust itself culturally to its environment whereas once having feigned access to the tissues of the body it adopts a different mode of life. What factors, if any, are capable of producing this change still remain to be determined.

CURRENT COMMENT

"MEDICAL EDUCATION AND THE CANCER PROBLEM" is the topic of an article in the St. Louis County Medical Society Bulletin. We quote from it in part. "In the case of the scattered members of the profession the problem has been more difficult. The general practitioner who sees only two or three cases of cancer in the course of a year's practice is not particularly concerned about the hundreds of thousands of cancer cases which do not come in contact with him. It has been his experience, especially if he is among the older members of the profession, that such cases as he does see are advanced and usually past the stage where he can be of much real assistance. He has been inclined therefore to view cancer with a more or less fatalistic attitude.

For the past six years the American Society for the Control of Cancer has planned and executed campaigns of education to correct this point of view. By its surveys of states and certain municipal areas, undertaken at the request of and in cooperation with local medical societies, it has made real progress. It has amassed a large amount of information concerning the incidence, diagnosis, and treatment of cancer and has placed this confidentially at the disposal of the profession. * * * The public and the profession needs immediately an awakened and enlightened attitude on the part of medical faculties to save and to utilize in the training of future generations of the profession the actual advances which have been made in the conquest of this disease.'

"PLAYED BUT NOT HEARD," an article by Robert Littell in the March 21 issue of Today speaks at some length about the "infra-listeners" to the radio. He describes this category of listeners thusly: "An infralistener is one who somehow feels happier in the presence of a certain noise, but who doesn't really like the noise well enough to

pay conscious attention to it." He tells of the household wherein the radio plays all day and concludes with: "Not long ago, two psychologists (Hadley Cantrile of Teachers College and Gordon W. Allport of Harvard) tried to find out just what effect the constant campus blare of radio was having on the acquisition of knowledge by the young. They got up a questionnaire. The answers to two of their questions are very instructive, and flatter neither the race of students nor the profession of broadcasting. The students were asked if they studied with the radio on. Sixty-eight per cent answered yes. Then they were asked if they thought they studied less effectively with the radio on. Sixty-eight per cent answered ves. This may be called 'infra-listening' with a vengeance."

"IT IS HIGH TIME that we doctors begin to realize the distinction between medical care as a luxury and medical care as a necessity. If the rich still insist on 'shooting the works' in medical diagnoses and treatment, that is their privilege and presupposes their ability and their desire to

The indigent have been well provided for; the so-called great middle class is supposedly our immediate problem. Is the highly developed medical science of today beyond their ability to obtain? This is the burning question that has stimulated 'reformers' to loudly demand a change in the

present medical set-up.

The answer should not be difficult. We must supply medical service to fit the pocketbook in a way that there need be no sacrifice of medical efficiency. Obviously there should be less laboratory work, less hospitalization, less expensive drugs, and less of all dispensable accessories that increase the price of medical service and add little or nothing to their ultimate efficiency. We got along without the 'trimmings' be-fore, and good medicine was practiced. The 'trimmings' are only refinements that need not be added to every case but only to those individual cases where knotty problems present themselves. In a ward, we must distinguish between the practice of medicine as a science and the practice of medicine as a pseudo-science. * * *

There is room for the exercise of sound judgment in medical practice so that the so-called middle class will receive only what is necessary. A fine sense of medical judgment along these lines will be a potent factor in reducing the 'high cost of medica.'

If medicine is to be regarded as a luxury it can be found very expensive for those able to pay. If it is to be regarded as a necessity, it can be made less expensive for those less able to pay. In either case, it still can be efficient. The pendulum has swung too far in the direction of pseudo-science. With our help to science and common sense let it swing back."—Polk County Medical Society in the St. Louis County Medical Society Bulletin.

"THE PRESIDENT REMARKED the other day that the Federal housing program was in such a mess that it was doubtful whether anything could be done about it very soon. Well, if it's in a mess, that's the best of reasons for doing something about it soon. The President's discussion of it at a press conference accomplished one thing, at any rate. For the first time, so far as we know, the Administration made it clear that there are two separate problems which should never be confused or allowed to overlap, but which somehow have become horribly mixed up in the public mind. One job is to provide housing for those who are povertystricken; the other, utterly different, is to encourage the building of small homes for the average American family which is able and anxious to pay its own way."-By the editors of Today in the March 21 issue.

Before the American Psychiatric Association last May Dr. Charles A. Rymer called attention to the "Psychology Racket." Medical Record of March 18 comments on the situation and on Dr. Rymer's paper. "These charlatans utilize every manner of scientific and pseudo-scientific material that they can assimilate, and pour out to the uncritical public an amazing mass of jargon. The food faddist, the 'yogi,' the faith healer, the 'practical psychologist,' and a host of similar dispensers of health and hope, are brothers under the skin. The 'dynamics' and magnetism of their personality, their oratory, their spectacular false generalizations, their emphasis on sex and on 'natural' methods, their peculiar dietetic systems, their brazen panaceas, classify them with the patent medicine man and snake oil vendor of yesterday.

Dr. Rymer cites in detail some of the absurd groupings of human nature and the human constitution which some of these quacks advocate, and gives many details of their 'scientific' and business tactics. * * * Psychological quacks represent an echoing of the modern stress on mental hygiene, psychoanalysis, endocrinology, mineral balance, and the vitamins. The dissembler will be with us until the public learns to be rational and critical, and that is a long way off; or until physicians are able to offer specific and certain remedies for all ailments, and that is equally remote."

In its article on "Typhoid Carrier

Record for 1935," the Health News of March 30 among other facts, states that: "Careful epidemiological investigations of all typhoid cases resulted in an increased proportion of cases in which a carrier was shown to be the probable source of infection. * * * During the year there has been an increased effort to detect the development of the chronic carrier condition in persons attacked with typhoid fever. * * * The chronic carrier condition was detected in a greater proportion of recovered cases than in any previous year. * * *"

"Thorough tests have demonstrated that it is harder for children to learn the answer to the question, 'Two and what make seven?' than the question, 'Two from seven leaves what?' It is easier to learn decomposition than construction, the psychologists gravely explain. Which is a depressing thought, but one that seems to rhyme with the history of this befuddled, bungling race."—From the editors of Today in the issue of March 28.

In the Jackson County Medical Journal of Kansas City, Missouri, we read, "It is axiomatic that nothing received for nothing is worth nothing. . . . But on the other hand, there has been no time in the history of the country when true charity is more needed in medical work, as a patriotic and humanitarian obligation, than the present. It must be administered with care and thoughtfulness, with tact, and with a strict sense of its objective-helping others to help themselves—or a medical paternalistic empire will be created that eventually will undermine the finest things in medicine and react with untold losses to everybody concerned."

FIFTEEN YEARS AGO, in his inaugural address as President of the Medical Society of the County of New York, Dr. George Gray Ward voiced some opinions and sentiments from which we feel we may quote as still being very timely today. "Even to the casual observer there is a trend of events that, like the handwriting on the wall, points a warning that socialization of the profession and State medicine are at our very threshold. We are confronted not only with a threatened socialization, but with a tendency to paternalism which I believe is detrimental to the independence of scientific thought and action, that is undemocratic and therefore un-American. It behooves the profession then to act in unity through its organizations such as this one, to combat the various agencies which, through misguided zeal or for personal aggrandizement are attempting to destroy all that has been gained by the profession of medicine in the centuries of progress toward the highest ideals."

Correspondence

[The Journal reserves the right to print correspondence to its staff in whole or in part whiles marked "private." All communications must carry the writer's full name and address, which will be omitted on publication it desired. Anonymous letters will be airrearded.

Astoria, L. I., N. Y.

To the Editor:

The address of E. Fullerton Cook, "A Pharmacopeia for Today's Needs," printed in your Journal No. 5 [page 361] has been of great interest to me. It seems indeed necessary to give some information about preparations as to their combination, compatibility, and palatableness. County Societies and the A.M.A. have already made such efforts; but it cannot be done in one hour's lecture; pharmacy is too great a field. May I quote a lecture given by Prof. Wimmer to the Queens County Society and papers of Dr. Fantus, Chicago, the latter papers concerning new combinations published in the N F VI? Strange enough, however, I experienced indifference on the part of pharmacists, and more than once I was told to "stick to the good old drugs."

Graduated in Europe I had to learn different ways of prescription writing; I have become acquainted with drugs unknown or rather not used in Europe. Whenever I asked a pharmacist about vehicles, Syrup of Squill has been highly recommended which is branded as obsolete in the Epitone of the U.S.P. and N F (published by the A.M.A.). Squill was known to me only as Bulbus Scillae used as heart stimulant. On the other hand, when I asked a pharmacist as to whether he has Eriodictyou in stock, (Eriodictyou was unknown to me and I cannot recall its having been mentioned even in lectures), the frequent reply was: "What do you want that obsolete thing for?" Although I do not know Dr. Fantus, I do not doubt his knowledge where medicine and pharmacy are concerned, and I rather rely upon him as being competent, because I figure that the A.M.A. would not publish his papers otherwise; and he recommended Syrup Eriodicty. Aromat. I can understand why some pharmacists do not want to bother with such things. During lunch hours it is often hard to get a prescription filled. On the other hand pharmacists are unwilling to stock items for which there is hardly a call-but it might be the other way that physicians do not prescribe them because the pharmacists do not have the drug in question. They dislike to stock new preparations-that means new expenseswith the uncertainty as to whether there will be a call for them.

Pharmacists blame the public and the increased demand for patent medicines for their decreasing prescription business; I believe, however, that the pharmacists have to shoulder the blame themselves. The right thing to do would be to ask for laws which require prescriptions for a greater number of drugs, sold at present time over the counter without prescription, and to refuse to be agents for quacks and patent medicines of more than doubtful value. Instead of cooperation with the A.M.A. which issues pamphlets for the enlightenment of laity (compare No. 9, Vol. 106, Journal A.M.A., page 36) they rather display advertisements of nostrums-because there is money in it; but there is more money in compounding prescriptions !

I should appreciate the cooperation between all pharmacists and all physicians and the opportunity of exhibits for medical groups as planned.

NAME OMITTED UPON REQUEST March 10, 1936.

To the Editor:

In connection with your article [page 352, March 15 issue], concerning the appointment of a layman by Dr. Jesse Williams, it might be interesting to check up a condition of which I have heard much, in Dr. Williams' own department in Teachers College.

I am told on the authority of the students who have been examined that a lay worker, a physical education teacher (I think her name is Miss Scheer), examined the hearts by means of stethescopic examination and determines whether or not the student is in good health and able to participate in physical education activities. She told a patient of mine that she "had serious heart trouble" which was not at all true. The girl became much alarmed and consulted the cardiac service at Mt. Sinai and was assured that nothing was the matter with her heart but she was still debarred on the authority alone of this lay person's diagnosis.

I cannot disclose my name because I am connected in the educational field and I cannot afford rebounds. Will you please check these statements? Six students have con-

firmed the facts to me.

PHYSICIAN IN PUBLIC HEALTH SERVICE

Society Activities

Committee on Legislation

Bulletin No. 11

April 1, 1936

The Assembly committees were discharged on last Thursday and they have finally reported their action upon bills. There follows a list of those that were defeated:

ASSEMBLY INT.

61-Wadsworth-transfer of TERA to Social Welfare Department. 83—Doyle—antivivisection bill. 93—McCaffrey—Workmen's Comp., physical exam. of employees. 204—Otto-employment of local health officer. 332—Justiceemployees, State hospitals, hours of employment. 446—Steingut—extending TERA to February 15, 1937. 511—Lo Re—transportation of physically handicapped children. 550—Fitzpatrick—hours of labor, employees all hospitals. 623—Breitbart—marriage license, blood tests. 835—Williams—medical and hospital expenses for firemen. 889—McCreery—Decedent Estate Law firemen. 889-McCreery-Decedent Estate Law, negligence cases, proceeds. 920-E. S. Moranemployment of physicians by hospitals. 1026—Breitbart—Criminal Code, blood-grouping tests. 1055-Bush-Mental Hygiene Law, private ins., zoning ordinances. 1134—Milmoe—sale of drugs by duly authorized persons. 1170—Potter—hospital lien bill. 1201—Cariello—payment of undertakers' accounts. 1394—W. Schwartz—Public Health Law, acceptance of Federal funds. 1445—Crews—sale of proprietary medicines. 1683—Neustein—clinical thermometers. 1706—Marble—acceptance certain person from even Marble—exempting certain person from exam. to practice optometry. 1720—Neustein—clinical thermometers. 1765 — Canney — Workmen's Comp., medical care, violating provisions. 1778 —Milmoe—persons who may sell poisonous drugs. 1871 — Breitbart — Domestic Relations Law, blood-grouping tests. 1934-Farenga-administration of certain parts of Federal Social S. Act. 1979—Rossi-Hospital medical superintendents, unauthorized. 1993-Dooling-adm. of certain parts of Federal Social Security Act. 2045-Lo Re-adm. of certain parts of Federal Social Security Act.

New Bills Introduced. Senate Int. 1740—Buckley; Assembly Int. 2102—Steingut; appropriates \$3,890,000 for Social Welfare Department for old-age assistance, dependent children, blind, child welfare, maternal and child health and crippled children, and \$25,000 to Education Department for vocational rehabilitation of physically handicapped. Referred to the Finance Committee.

Senate Int. 1770—Livingston; Assembly Int. 2158—Shelton; amends section 621, Education Law, requiring parent or guardian of any minor between ages of three and eighteen who because of deafness or im-

paired hearing is unable to benefit materially by public school instruction, to send such minor to school where deaf or hard of hearing are given full-time instruction. Referred to the Education Committee.

Senate Int. 1771—Livingston; Assembly Int. 2130—Keogh; adds new section 320-a, Public Health Law, requiring immediate report by physician, nurse, parent or guardian in charge of any minor under six years who is totally deaf or whose hearing is impaired, health officer being required to have scientific test made by an otologist; also to provide such treatment as is needed if parent is unable to meet the cost. Referred to the Health Committee.

Senate Int. 1812—Schwartzwald, adds new section 336, Public Health Law, for licensing and regulation by State Pharmacy Board of all advertising of appliances, drugs or medical preparations for prevention of venereal diseases. Referred to the Health Committee.

Senate Int. 1834—Warner; Assembly Int. 2188—Marble; adds new section 189, Lien Law, giving physicians lien on verdict or judgment or proceeds of settlement or compromise for treatment of persons injured or killed as result of negligence of any other person or corporation. Referred to the Judiciary Committee.

Comment: This bill was introduced in both Houses at the request of the Medical Society.

Senate Int. 1855—Dunnigan; Assembly Int. 2220—Wadsworth; adds new Art. 1-a, amends section 2, Public Welfare Law; repeals sections 10 to 14 and 18, State Charities Law, for reorganizing State Department of Social Welfare and for transferring thereto the functions of Temporary Emergency Relief Administration. Referred to the Relief and Welfare Committee.

to the Relief and Welfare Committee.

Assembly Int. 2175—McConnell, amends section 383, Public Health Law, by providing birth certificate shall contain photograph of fingerprints of mother and footprints of child.

Assembly Int. 2241—Miss. Todd, adds new Art. 59, Education Law, for regulating the practice of beauty culture.

The optometry bill has been amended by striking out paragraph 4 on page 14, and in this amended form the bill has been approved by the Committee.

Bulletin No. 12

April 2, 1936

The two Houses of the Legislature, finding it impossible to agree upon a budget for next year's State expenses, have appointed a conference committee from members of both Houses to attempt to settle the difficulty. In the meanwhile, both Houses are marking time; most of the legislators have gone home and active work will not be resumed until after Easter and probably not before the week of April 20.

This is a very excellent time for every chairman to cinch the matter with his legislators as to how they shall represent him on the chiropractic bill. You have received the latest print and know that the bill is in the hands of the Assembly Committee on Rules. If each county chairman can secure a promise of opposition from his Assemblyman, the bill will be defeated. This is very important and we hope that it will be considered so by every chairman. We are pleased to state that already we have had reports from quite a number of chairmen, most of whom have gotten a definite promise of cooperation from their legislators.

There follows a statement of the present status of each bill that we are following that has been acted upon by its reference committee. You will recall that quite a few bills were killed in the Assembly by the reference committees, while others were referred to the Committee on Rules. In the Senate, bills may remain with reference committees until the close of the session. In this report you will find a statement of the present position of all bills that have been reported out by the reference committees in both Houses:

PRESENT STATUS OF BILLS Senate Int.

12-Buckley-Jury duty, amended. 219-Schwartzwald-State Health Dept. to supply blanks for marriage licenses, chapter 163, 220-Schwartzwald—Vital statistics, still-births, to Governor. 233—Budget Bill—TERA—\$10,000, 000, chapter 88. 348—Twomey—Extension of TERA (2/15/37), 3rd rdg. 377—Quinn— Bringing indigent into State, to Governor, 535 -Schwartzwald-Requirements for residency in St., to Governor. 536-Schwartzwald-Powers of State Health Comsr., to Governor, 855-Schwartzwald-Reports, communicable diseases, to Governor, 867-Twomey-Mnf, and sale of prop. medicine, 3rd rdg. 898—Wicks—Practice of optician, amended. 1084—Schwartzwald— Silicosis, compensation, recommitted. 1181-Bontecou-Diseased cattle, indemnities, recommitted. 1185—Doyle—Practice of optometry, amended. 1248—Byrne—Exam. physician, personal injury action, 3rd rdg. 1259—Nunan—Welfare Law, medical care, passed Sen. 1316—Dunnigan—Name, Onconta T. B. Hospital, passed Sen. 1317—Dunnigan—Social security bill, passed Sen. 1404—Schwartzwald—Narcotic drugs, wholesaler, 3rd rdg. 1431—Dunkel— Poisonous medicine, sale of, passed Sen. 1522— Quinn—Licenses, maternity hosps, N. Y. C., passed Sen. 1569—Feld—Practice of podiatry, amended on 3rd reading. 1589-Livingston-Tests, defective hearing, reported. 1770-Livingston-Deaf children, educating, reported.

Assembly Int.

30—E. F. Moran—Jury duty, stricken from cal. 115—Fitzpatrick— Hours, employees, State ins., reported, 136—Taylor—Testimony, physi-cians, chapter 139. 483—Whitney—Bovine animals, diseases, passed As. 654-Potter-Hours, nurses, State hospitals, passed As. 814-Swartz -Sick prisoners, custody, to Governor, 833-Ostertag-Hours, employees, State ins., passed Ostertag—Frours, employees, some many properties, amended, 919—E. S. Moran—Medical care, indemnity, amended. 963—Parsons—Hospital Lien bill, put over to 4/20. 988—Miss Byrne—Workmen's Comp., interns, passed As. 1158—Swartz to Governor. -Supt. Napanoch institution, to Governor. 1375—Piper—Practice of optometry, amended. 1510—Conway—Foreign physicians, licenses, put over to 4/20, 1511—Conway—Foreign physicians, licenses, amended. 1613 — Sherman — Name, Oneonta T. B. Hospital, passed As.; on 3rd rdg. in Senate. 1690-Bush-Narcotic drugs, wholesaler. Reported. 1793—Robinson—Board of psychiatric examiners, passed As. 1794—Robinson—Criminal Code, insanity of defendant, passed As. 1797—Labor Com.—Workmen's Compensation, silicosis. passed As. 1823—Breitbart—Blood-grouping tests, N.Y.C., and S. 1823—Breitbart passed As. 1832—Canney—Occupational diseases, reports, put over to 4/20. 1872—Breitbart -Civil, blood-grouping tests, passed As. 1884-Brownell-Licenses, maternity hospitals, N. C., passed As. 2011-Rapp-Motor vehicles, vision test for learners, passed As.

> HARRY ARANOW B. B. BERKOWITZ B. WALLACE HAMILTON JAMES F. ROONEY LEO F. SIMPSON

Postgraduate Lecture Courses

conducted by

The Committee on Public Health and Medical Education

Doctor Robert Barber addressed the Sullivan County Medical Society on March 18, on "Vascular Diseases of the Extremities" in Liberty. His talk was well received, and regarded as very practical, and well presented. This was the third of a series of lectures given to this County Society. On April 1, Doctor Lambert Krahulik spoke to this group on "Rheumatism and Rheumatic Carditis in Childhood," and on April 8, Doctor Charles A. Weymuller concluded the course with a lecture on "Diabetes in Child-hood." This course on General Medicine was organized by Doctor Luther Warren, of Brooklyn, from the faculty of the Long Island College of Medicine.

On April 1 a course on General Medicine opened in Elmira for the Chemung County. The lectures are to be given on six consecutive Wednesday evenings in April and May (omitting that Wednesday falling during the meeting of the State Society), alternately at the two hospitals in Elmira. The subjects and the speakers for the various

dates are as follows:

April 1....Dr. O. W. H. Mitchell Staphylococcic Diseases

Woman's Auxiliary

The meeting to organize the Woman's Auxiliary to the Medical Society of the State of New York was held on March 11, 1936, in the Waldorf-Astoria Hotel in New

York City.

Mrs. John L. Bauer, the organizing President, was in the chair. Mrs. Rogers N. Herbert of Nashville, Tenn., President of the Woman's Auxiliary to the American Medical Association, and Mrs. Samuel C. Red of Houston, Texas, the founder of the Woman's Auxiliary to the American Medical Association, were present. Representatives, in the proportion of one for each twentyfive members, or fraction thereof, from the six organized county auxiliaries, with the exception of Albany county, were in attendance. A Constitution was signed by everyone present and By-Laws were adopted. The following officers were elected to serve until the Annual Convention in 1937:

Mrs. John L. Bauer (Kings County) President Mrs. Francis R. Irving (Onondaga County)

President-Elect Mrs. Edward A. Flemming (Queens County)

1st Vice-President DOCTOR'S WIFE

Pneumonia

April 15......Dr. James K. Quigley Practical, Everyday Obstetrics

April 22......Dr. Thomas P. Farmer The Newer Endocrinology and Gynecology

Diseases from the Standpoint of the General Practitioner

May 13......Dr. Clayton W. Greene The Management of Hypertension

A general course is being arranged for the St. Lawrence and Jefferson County Medical Societies, with lectures to be given in Ogdensburg and Watertown respectively, on Thursdays in April and May. The meetings in Ogdensburg will be held at 1:00 p.m., and in Watertown at 8:00 P.M. The subjects and speakers for the different dates will be announced later.

Mrs. Frederic E. Elliott (Kings County) 2nd Vice-President

Mrs. Henry L. Hirsch (Nassau County) Rccording Secretary

Mrs. Irving J. Sands (Kings County) Corresponding Secretary (App'd. by Pres.)
Mrs. Daniel J. Swan (Queens County) Treas-

DIRECTORS

Three years: Mrs. Charles H. Goodrich (Kings County) and Mrs. Albert M. Bell (Nassau County).

Two years: Mrs. Harry S. Bull (Cayuga County) and Mrs. John W. Pennock (Onon-

daga County).
One year: Mrs. Edwin A. Griffin (Kings County) and Mrs. Bernard B. Berkowitz (Kings County).

Dr. Frederic E. Sondern, Mrs. Rogers N. Herbert, and Mrs. Samuel C. Red addressed

the assembly at luncheon.

A very cordial invitation is extended to the wives of all the members of the Medical Society of the State of New York to visit the headquarters of the Woman's Auxiliary in the Waldorf-Astoria during the convertion.

GETS ADVICE

The life of a doctor is shorter than that of other professional men, and it is the duty of the doctor's wife to increase his life span, Health Commissioner John L. Rice told 750 women at the first annual luncheon meeting of the women's auxiliary of the Kings County Medical Society, held at the St. George Hotel, Brooklyn.

"A study of the life span of professional men reveals the fact that doctors are the shortest lived," Dr. Rice said.

"Analysis and thorough study should be made of this fact. It is a good chance for you wives to extend your husbands' life span.

"Your husband has to go on a call when it comes; he is subject to many hardships. When vacation time comes he says, 'Oh, what's the use' and stays at his job. You have the power to make your husbands go on vacation. This should be your job."

Public Health News

THE BURDEN OF SYPHILIS IN NEW YORK CITY

JOHN L. RICE, M.D., JACOB A. GOLDBERG, PH.D., New York City

This report was prepared with the cooperation of the Social Hygiene Committee of the New York Tuberculosis and Health Association

In planning a program for syphilis control it is important first of all to know the size of the problem. To this end, censuses of cases under medical care have been made in many cities and some counties in the United States, under the joint auspices of the United States Public Health Service and the American Social Hygiene Association, in cooperation with county medical societies and other local agencies. These studies, covering areas which total more than 27,000,000 population, have furnished a basis for estimating the number of cases of syphilis under medical supervision in the United States at any given time, and the annual incidence rate of new cases. These and other data have enabled us also to arrive at the estimate that, conservatively, five per cent of the population of the United States, roughly 6,000,000 persons, have syphilis at any given time. Of this number of cases it is estimated that only about one-tenth are under medical care by private physicians and institutions. The enormous proportion of cases not under medical supervision, of which a considerable percentage is in an infectious state, constitutes one of the major

problems in public health.

In June 1935, the Department of Health of New York City in cooperation with the United States Public Health Service undertook a census of cases of syphilis under medical care in the city. It was hoped that the data secured would serve as a basis of comparison with those of an earlier survey made in 1928 and thus show the trend. Unfortunately, the returns were not sufficiently complete to serve this purpose. The returns are, however, significant and impressive and give at least a partial concept of the burden

of syphilis in New York City.

A letter was written to every practicing physician and to all hospitals and clinics in the city requesting their cooperation in the census of cases, and forms for making the reports were furnished. The information requested was:

 The number of early and of late cases of syphilis diagnosed for the first time during the month of June.

(2) The number of early and of late cases

diagnosed before June first but treated or observed during the month of June. The figures were to be given separately for males and females. "Early" means a duration of less than one year; "Late" means a duration of more than one year.

Reports of cases were sought from three sources: (a) Department of Health Clinics, (b) Public and private hospital clinics, (c) Private physicians.

Health Department Clinics

Table I presents the cases of syphilis reported from the five clinics of the City Health Department.

It is observed that the five Health Department Clinics treated 5733 cases of syphilis during the month of June, of which 542 were early cases. If this rate of new cases prevailed through the twelve months of the year, it would mean a total of 6504 new cases diagnosed in the Health Department clinics alone during the year.

We see that of the total cases handled, 3124 or 54.5 per cent were males and 2609

or 45.5 per cent were females.

The significance of this total of patients treated by the Health Department clinics is, that these patients represent an economic status which does not enable them to pay for treatment and who are receiving treatment This service is a very strategic one in view of the great need for free treatment of indigent patients in the city and the fact that the only other regular source of free treatments is the clinics of the city hospitals. The question has been raised whether it should be a function of the Health Department to maintain treatment centers, whether it should not confine its service to the diagnostic and epidemiological aspects of venereal disease control. It is pointed out that such clinics are best maintained in connection with the outpatient departments of hospitals where all the necessary services are available. Whatever the answer ultimately may be, the great inadequacy in free treatment facilities that now prevails in the city does not yet permit any discontinuance of, or reduction in, the treatment service rendered by the Health Department.

Public and Private Hospitals

Requests for data were sent to 210 institutions. Replies were received from 132 or sixty-three per cent. Of these, eighty-three supplied part or all of the data asked for. The rest reported "no cases under treatment" or "do not treat syphilis." It is probable that a large proportion of the institutions which did not reply do not handle syphilis cases.

Table II presents the cases of syphilis reported by the public and private hospitals.

Of this group of eighty-three institutions which reported cases under treatment (not including the Health Department clinics), nine were city hospitals in the clinics of which venereal disease treatments are furnished free. These institutions carry a large case load. The rest of this group are private institutions which make a moderate charge for treatments but many of which carry free a proportion of cases which cannot afford to pay. Most of these private clinics have a comparatively small case load.

It is seen that this group of eighty-three institutions treated 12,068 patients during the month of June, of which 1201 were early cases, diagnosed for the first time during that month. Of these patients, 7008 were males and 5060 were females. It is

noteworthy that the five Health Department clinics alone carried almost half as many patients as did the group of eighty-three city and private institutions. It is obvious, therefore, that much larger provisions for free treatment of venereal cases will have to be made in connection with city and private hospitals before the Health Department can wisely consider the discontinuance of its special treatment centers. However, this desirable reorganization of services should be brought about as early as possible so that treatment for venereal diseases may be conducted in connection with the full complement of services provided in an outpatient department of a hospital and which modern ideas and methods demand. Such a readjustment would enable the Health Department to focus upon its special task of diagnosis and epidemiological service which aims at prevention of the spread of disease.

Private Physicians

Approximately 10,000 questionnaires were sent to physicians in the city. Of these, 5741 or 57.4 per cent were returned. Of those returned, 1547 report cases under treatment; the rest either have no cases, or do not treat syphilis, or are not in practice. Some were deceased or not found. While it is probable that the great majority of the

TABLE I

	Male			Female			Total			
	Early	Late	Total	Early	Late	Total	Early	Late	Total	
Diagnosed in June Diagnosed before June 1	45 424	255 2400	300 ·2824	22 160	220 2207	242 2367	67 584	475 4607	542 5191	
Total	469	2655	3124	182	2427	2609	651	5082	5733	

TABLE II. SYPHILIS CASES REPORTED BY INSTITUTIONS

	Male				Female			Total		
	Early	Late	Total	Early	Late	Total	Early	Late	Total	
Diagnosed in June	202	600	802	127	272	399	329	872	1201	
Diagnosed before June 1	1040	5166	6206	865	3796	4661	1905	8962	10867	
Total	1242	F 72.6	2000							
20tal	1242	5766	7008	992	4068	5060	2234	9834	12068	

TABLE III. SYPHILIS CASES REPORTED BY PRIVATE PHYSICIANS

Diagnas I	Early	Male Late	Total	Early	Femal Late	e Total	Early	Total Late	Total
Diagnosed in June Diagnosed before June 1	317	418 1533	675 1850	104 124	263 812	367 936	361 441	681 2345	1042 2786
Total	574	1951	2525	228	1075	1303	802	3026	3828

TABLE IV. Sources of Reported Cases in New York City

Department of Health Institutions Physicians	1242 574	Male Late 2655 5766 1951	Total 3124 7008 2525	Early 182 992 228	Femal Late 2427 4068 1075	Total 2609 5060 1303	Early 651 2234 802	Total Late 5082 9834 3026	Total 5733 12068 3828
Total	2285	10372	12657	1402	7570	8972	3687	17942	21629

more than 4000 physicians who failed to report had no cases to report, the number of cases reported can only be taken as a partial report of cases under treatment by private physicians. Table III shows the

cases reported by physicians. We observe that the private physicians reported a total of 3828 syphilis patients treated in the month of June. This is less than eighteen per cent of the total of cases reported. More than eighty-two per cent of the cases reported were under medical care in hospitals and clinics. Even if we assume that another 3000 cases might have been reported by the 4000 physicians who failed to report, it would still leave the private physicians of the city playing a meager role in syphilis control, when compared with the figures from the extensive censuses of cases that have been made in the United States. These show that on the average, about sixtyfive per cent of cases of syphilis under medical care are in the hands of private physicians. The situation in New York suggests that the medical societies and the public health authorities need to address themselves to the promotion of a larger participation in syphilis control by the private physicians.

All Sources Combined

Table IV shows the total of cases reported

from all sources.

We note that there was reported in this census a total of 21,629 cases of syphilis under medical care in New York City during the month of June 1935. Of this number, 2785 were new cases. Assuming this monthly rate of new cases to hold for the year, it would give a total of 33,420 new cases of syphilis under medical supervision during the year. These figures are impressive, and more so when we remind ourselves that the census figure represents only a partial report of cases.

It has been stated that extensive surveys in the United States indicate that only about one-tenth of those infected with syphilis at any given time are under medical supervision. Assuming this rate to hold for New York City, even the incomplete figures of the census would suggest the existence of at least 334,200 cases of syphilis in New York

City in 1935.

In comparison with the 33,420 cases of syphilis reported in this partial census of

The psychologists have made a discovery. Lovers' tiffs have a real purpose during the period of courtship and should not be interpreted as having too serious an import, Dr. Harry A. Steckel, director of the Syracuse State Psychopathic Hospital, advised students at the third session of the marriage

cases, there were reported to the Department of Health for the same year 47,659 cases. While this figure doubtless includes a certain proportion of duplication, the figure may be fairly taken as a basis of estimating the total prevalence for the city inasmuch as it is well-known that of all reports of infectious diseases the reports of syphilis and gonorrhea are the most notoriously incomplete. If only one-tenth of the existing cases of syphilis are under treatment, the 47,659 reported cases would suggest a prevalence of 476,590 cases of syphilis in New York City in the year 1935.

It is of interest to note that of the 21,629 cases reported in the city census, 58.5 per cent were males and 41.5 per cent were

females.

Summary

The returns of the census are incomplete and hence do not show the total number of cases of syphilis under medical care, or the whole burden of syphilis in New York City.

Based on the census, there were 33,420 cases of syphilis under medical supervision in New York in 1935. The number of cases reported to the Department of Health during

the year is 47,659.

On the basis of data for the United States which indicate that only one-tenth of existing cases of syphilis are under treatment, the census figure suggests a prevalence of 334,200 cases of syphilis in New York City in the year 1935; and number of cases re-ported to the Department of Health suggests a prevalence of 476,590 cases in the City of New York in 1935.

We shall probably be justified in estimating the total number of those infected with syphilis at about five per cent of the popu-

Of all cases reported, 58.5 per cent were men and 41.5 per cent were women.

The demand for free treatment of indigent patients is shown by the fact that of the 21,629 cases of syphilis reported from all sources for the month of June, 5733 cases were treated by the five clinics of the Health Department alone.

The small proportion of cases reported in the hands of private physicians indicates that in New York City the private physicians play as yet but a small role in syphilis control, as compared with reports from other

cities and the country as a whole.

et to a

course in Hendricks Chapel in Syracuse on March 13.

Dr. Steckel, discussing, "The Emotional Aspects of Mating," told the 363 students that quarrels during the courtship period are a natural sequence to tension and uncertainty.

Medical News

Bronx County

A HEALTH EXHIBIT will be held in the Bronx County Building, 161st St. and Concourse, during the week of April 27, which has been designated as "Better Health Week," under the joint auspices of Bronx medical, dental and health organizations.

The purpose of "Better Health Week" is to educate the public to the necessity of caring for the human body before illness sets in. During the exhibit, guides and workers will explain the program to visitors

and answer all questions.

Organizations sponsoring the "Week" include the Bronx County Medical Society, the Bronx County Dental Society, the Northern Dental Society, Bronx County Pharmaceutical Assn. and the Bronx Tuberculosis and Health Committee.

ALDERMAN JOSEPH E. KINSLEY, of the Bronx, has written a letter to James E. Finegan, President of the Municipal Civil Service Commission, protesting against the selection of eight out-of-town residents among the eleven new candidates for district health officers of the Department of Health. Alderman Kinsley regards it as preposterous that with thousands of experienced medical men close at hand, the city should go outside for health experts.

He declared that "stripped of all the folde-rol, any well-trained physician of New York City can meet the requirements for District Health Officer. Experience in our own Health Department gives such a man far greater qualifications to do this work than those possessed by the threatened importations from the remote hamlets on your list, towns whose populations of 3,000 to 10,000 could be tucked away in one block of our congested areas. I am in receipt of a letter from Dr. E. C. Podvin, executive officer of the Bronx County Medical Society, in which he informed me that that body went on record endorsing the position I have taken. I am also informed by members of the other county societies that similar action will probably be taken by them."

Broome County

Dr. George Albert Swift, professor of surgery at Syracuse University, was the guest-speaker at the March meeting of the Binghamton Academy of Medicine in Johnson City. Dr. Swift's subject was "Intestinal Obstructions." A buffet supper was served.

Cattaraugus County

DR. J. E. K. Morris, senior members of the staff of the Olean General Hospital, was honored by his colleagues and many other friends at a banquet at the Olean House on March 10, the golden anniversary of his medical practise in Olean. The principal address of the evening was delivered by the Rev. C. Clark Shedd, pastor of the First Methodist Episcopal Church, while others paid affectionate and sincere tribute to Dr. Morris, "a man who has done so much, and still does so much, with an alertness many younger men and women must envy." His son, the late Dr. Raymand B. Morris, was recently President of the Eighth District Branch.

Chautauqua County

THE PROPOSAL SPONSORED by the medical advisory staff of Jamestown General Hospital and endorsed by the board of public welfare, providing for abolishment of the office of city physician and substitution of a new plan for giving medical relief to welfare clients, by which persons on relief might call any physician, was abruptly tabled by City council on Mar. 16 at the request of its sponsors. The target of heavy criticism since it was first proposed, the plan was referred for study to a committee composed of three councilmen, three members of the board of public welfare and three members of the hospital advisory staff. Acceptance of the plan would have entailed a change in the city charter.

Chenango County

GOVERNOR LEHMAN has appointed Dr. Louis W. Abbamonte, of Norwich, as coroner for Chenango county, to fill the vacancy created by the death of Dr. A. R. Morse, of Oxford.

Dutchess County

Dr. James Rooney of Albany, former president of the New York State Medical Society, was one of the speakers at a dinner meeting of the Dutchess County Medical Society at Poughkeepsie on March 17. Dr. Joseph Lawrence, executive officer of the state society, also was present. About seventy-five members attended.

Erie County

THE ADMINISTRATION OF anesthesia is a part of the practice of medicine, and should

therefore be conducted by graduate physicians, said Dr. L. F. Anderson in a paper on "Anesthesia—Physician or Nurses" read before the Medical Society of the County of Erre on March 16. This is strictly in the best interest of the welfare of the patient, he said for a continual diagnosing of the patient's condition is necessary during the administration of anesthesia, and that is a part of the practice of medicine Dr. Anderson's paper was followed by an exhibitive discussion by surgeous employing physician anesthetists and those employing nurses. At the close of the discussion these resolutions were adopted unanimously

Whereas We realize that the abuses existing in medical practice due to unlawful acts, are causing an economic condition in which non licensed persons are practicing medicine and depriving physicians of their rights, especially in presidence but thereby.

in anesthesia, he it hereby

Resolved 1-The Medical Society of the County of Eric condemns this practice and urges all of its members to do everything in their power to correct the abuses connected therewith.

2-The delegates to our State Medical Society shall be instructed to vote as a body to secure legislation prohibiting this infringement on our property rights.

3-The committee on mesthesia shall be in structed to call on all hospitals and surgeons using nurse anesthetists and ask their co-operation in correcting this evil.

4-A copy of these resolutions shall be sent to the Medical Society of the State of New York and the American Medical Association with the request that a Section on Anesthesia be established in both these societies

At the same meeting a motion was made seconded, and carried that the president call the attention of both the junior and Senior Chambers of Commerce in Buffalo to the fact that the Medical Society of the County of Erie would suggest and urge that their chairman of their Public Health Committees be physician members rather than lay members

A one day postcraduate clinical meeting of the alumni association of the University of Buffalo School of Medicine will be held at the Hotel Statler in Buffalo on April 18 The program will include papers on important medical and surgical topics by Dr Donald C Balfour, Chief of Surgery of the Mayo Foundation, Dr Walter C Alvarez, Professor of Medicine, Graduate School, University of Minnesota, Dr Charles A Elsberg, Professor of Neuro Surgery, Co lumbia University, Dr Nicholson J Eastman, Professor of Obstetrics, Johns Hopkins, Dr Ernest E Irons, Professor of

Medicine, Rush Medical College, Dr Philip D Wilson, Director of Surgery, New York Hospital for Ruptured and Crippled, and Dr Francis F Schwentker, Assoc, in Pediatrics, Johns Hopkins The annual dinner will be hild in the evening, with an address by Dr Reginald Fitz, of Boston, on Dr Watson of the Sherlock Holmes stories

Jefferson County

FIGHTY-FIVE PHYSICIANS attended the March meeting of the Medical Society of Jefferson county at the Black River Valley club in Watertown Dr Stanley W Sayer of Gouverneur, district health officer, was a guest Dinner was served at 6 30 Dr Frederick E Elliott of New York spoke on "The Gradient Plan"

Kings County

ALTHOUGH LEAD AND Arsenic poisoning are decreasing industrially, there has been a decided rise in the number of home cases, members of the Kings County Medical Society were told on March 17 by Dr. Frederick B. Flinn, director of industrial hygiene at the College of Physicians and Surgeons, Institute of Public Health

Dr Flinn declared that industrial cases in England had dropped from 1,048 in 1900 to 104 in 1931 Arsenic poisonings in the homes have risen in recent years, however, because of the illegal spraying of fruits and vegetables. Canned goods are comparatively safe, he said.

Dr Eugene R Marzullo, assistant clinical professor of medicine of the Long Island College of Medicine, spoke on "Lead Poisoning"

Announcement was made of a new program of lectures, on the first and third Wednesdays, to be accompanied by motion pictures in natural color

The prevalence or so much misleading medicinal advertising was termed a "great misfortune" by Dr. Elmer V McCollum, Professor of Biochemistry at Johns Hopkins University and discoverer of Virtumin D, in a lecture before more than 400 physicians at the headquarters of the Kings County Medical Society, Brooklyn on March 20 He urged the medical profession to forestall the "extravagant claims" of retulers for the qualities of their medicinal preparations by thoroughly investigating all important new scientific discoveries

New York County

PLANS FOR A \$1,000,000 medical college behind the present Flower Fifth Avenue Hospital between 105th and 106th Streets, were reveiled on March 16 by Dr Claude A. Burett, dean of the New York Medical College and Flower Hospital, at an alumni dinner at the Hotel St. Moritz.

Dr. John L. Rice, Health Commissioner, announces that 700 nurses from the city's Bureau of Nursing are making a field study of home conditions in an effort to improve the home relief food situation. The nurses, Dr. Rice explained, are instructing housewives how to make their allowances fit their needs and at the same time provide their families with the kind and amount of food necessary for health.

"While detailed food lists, showing how a family can live on a certain amount of money each week, no doubt have value," said Dr. Rice, "we have found that such lists do not solve the problem for many housewives. More individual guidance is needed and this we aim to supply through

our nurses.

"By having each of the Health Department nurses fitted to teach housewives on relief not only the nutritional value of foodstuffs, but how appetizing and healthful meals may be prepared from low cost foods we believe we are making much progress in keeping such families in health."

Niagara County

The value of chest clinics in discovering cases of tuberculosis in their early stages were stressed by Dr. Arthur N. Aitken, superintendent of the Niagara Sanatorium, in a talk to members of the Niagara County Medical society at their March meeting at the Sanatorium near Lockport. About 35 physicians attended and were introduced to Miss Margaret E. Newman, new executive secretary of the Niagara County Health association. Miss Newman spoke briefly on the health association program for the coming year and showed a talking motion picture entitled "Contacts," a drama of tuberculosis.

At the Meeting of the Medical Society of the County of Niagara on March 10 in Lockport Dr. A. N. Aitken, superintendent of the sanatorium delivered an address on Clinic Case-Finding. Preceding the address, Miss Margaret E. Newman, executive secretary of the Niagara County Health Association, presented a movie entitled, "Contacts," a drama on tuberculosis.

Oneida County

A JOINT DINNER MEETING of the Utica Academy of Medicine and the Utica Dental Society is slated for the evening of April 15 at the Yahnundasis Golf Club. Dr. Waugh, professor of orthodontia, Columbia

University, will speak and show colored motion pictures of life in the Hudson Bay region and in Alaska. A dance will follow.

Onondaga County

SIXTY-FIVE HUNDRED YEARS of medicine passed in review before 250 Central New York physicians in the ballroom of the Onondaga in Syracuse on the evening of March 17.

The history of the profession, from Em-Herep, who lived 4,500 years before Christ, to Sir William Osler, was portrayed in a medical masque, "Down Thru the Centuries," at a dinner meeting of the Syracuse Academy of Medicine. The masque opened with the appearance of Aesculapius, god of the healing art and son of Apollo. The part was played by Dr. Charles D. Reid, director of the play. Dr. William F. Mitchell took the part of Em-Herep and told how he used hyoscyamus, soother of pain, in ministering to the sick.

Hippocrates, in the person of Dr. Gordon D. Hoople, related his part in the history of medicine. He kept the first case histories, and after his death no records of note appeared for another 1,700 years. Galen, thru the voice of Dr. C. J. Wells, unfolded his discoveries and works on the four classic symptoms. He also described his treatment of inflammation, aneurysm and forms of phthisis and proved that he was the first to show that the arteries contained blood.

Dr. W. D. Ayer appeared as Vesalius, the Brussels anatomist, upon whose experiments the study of anatomy was developed. Dr. W. B. Siewers, in the correct costume of the period, was William Harvey, first to show that the heart acts as a muscular force pump to help the flow of blood along. Dr. A. B. Yeckel, wearing the fancy clothes of the late 18th century, was Edward Jenner, who performed the first vaccination in 1796 upon an English country boy who had been stricken with what was then known as "cow" pox.

The character of Lord Lister, whose work in a septic surgery forms the basis for all the modern developments of surgery in hollow cavities of the body, was portrayed by Dr. P. K. Menzies. The part of Sir William Osler, pioneer in anaesthesia and sanitation, was taken by Dr. H. W. Retan.

After the dinner and before the play, the doctors offered "My Wild Irish Rose," "Long, Long Trail" and "I've Been Working on the Railroad."

The program closed with a technical address by the guest of honor, Dr. Warfield T. Longcope, physician-in-chief to the Johns

Hopkins hospital, Baltimore. Dr. O. W. H. Mitchell was chairman.

DR. F. J. KAUFMAN, of Syracuse, who dided a few weeks ago at the age of seventy-two was said to have been a personal friend of Emperor Franz Josef of Austria. For many years he served as Consul of Austria in Central New York. From the emperor he received two of the government's highest honors, the Order of the Cross of Malta and the Order of Franz Josef. The third honor conferred by the emperor was the Hoche Deutsche Dritte Or hung.

Oueens County

THE MEDICAL BOARD OF Flushing Hospital and Dispensary announces that it wishes to register its emphatic disapproval at the present time of the tentative Revised Curriculum drawn up by the New Curriculum Committee of the National League for Nursing Education, requiring two years of preliminary college work.

THE AUXILIARY OF THE Medical Society of the County of Queens, Inc., is making extensive plans for a May Day Program to be held at the Society's Building, on Friday afternoon, May 1. This program is the introduction of a movement for the improvement of health conditions in Queens County and for the welfare of the youth of the Borough. Noted representatives of various health organizations and the City's Health Department will participate in this program.

The FOLLOWING SUBJECTS and speakers are slated for the scientific session of the Medical Society of the County of Queens on Tuesday, April 21, at 8.30 p.m.: "A Study of Organized Medical Care in the Metropolitan Area"—By Haven Emerson, M.D., Professor of Public Health Practice, College of Physicians and Surgeons. "Present-Day Hospital Problems"—By Harry P. Mencken, M.D.

Rensselaer County

THE RENSSELARR COUNTY Medical Society heard an interesting paper at its March meeting by Miss Grace E. Allison, R.N., R.S., Superintendent of the Samaritan Hospital, on "The Physician as the Hospital Sees Him."

Steuben County

A JOINT MEETING OF the Steuben County wedical Society and the Steuben County Health Officers Association was held in Corning on March 12, at the Baron Steuben Hotel.

The subjects were: Clinical Aspects and Use of Type I Anti-pneumococcus Serum, Dr. Norman Moore, Ithaca; Description of

Laboratory Service, Dr. R. J. Shafer, Corning; Discussion of Organization for Control, Dr. E. S. Rogers, Albany.

Tioga County

A SHARP CRITICISM of the way medical relief moneys for old age recipients are handled in Tioga County was made in resolutions adopted by the County Medical Society on March 3. Such moneys are now paid directly to the client, who is often incapable of handling them and unfit to determine the need or urgency of medical care. A change is demanded. The meeting also expressed opposition to the chiropractic bills now up at Albany. Dr. John Love, of the Wilson Memorial Hospital, spoke on Research and Therapy with the Bacteriophage.

Westchester County

DR. STANTON CURRY, one of the oldest practicing physicians in Peekskill, was guest of honor on March 9 at a meeting and banquet of the Peekskill Medical Society at the Bonnie Brook Inn. Practically all the physicians in Peekskill and vicinity were in attendance. Dr. Curry has been in the general practice of medicine in Peekskill for thirtyeight years.

THE WESTCHESTER COUNTY Medical Society urges public support for a legislative measure which it claims would result in an annual saving of more than \$100,000 to Westchester taxpayers and the financial supporters of the county's 15 general hospitals. The measure is senate introductory bill No. 829, introduced by Senator William T. Byrne of Albany, The bill would permit the filing of a lien by the hospital, the attending physician and private nurse for reasonable charges for their services rendered to patients injured and hospitalized as a result of automobile accidents-such liens apply against damages subsequently awarded by insurance companies, should the injured carry accident insurance. An exemption of \$300 would be allowed the patient before such liens would become effective.

The County Medical Society in its statement reported that "surveys conducted in recent years indicate that the hospitals in Westchester County alone lose annually over \$100,000 in charges for services delivered to these emergency cases. The patients are discharged, only to return to their homes, usually outside the county, leaving the hospital, the physicians and nurses who restored them to health, 'whistling' for their well-earned fees. When damages are subsequently awarded there is now no way to enforce payment of these fees except by civil suit."

Medicolegal

LORENZ J. BROSNAN, ESQ.

Counsel, Medical Society of the State of New York

Practice of Medicine By a Corporation

The highest Court of one of the midwestern states, a few weeks ago had before it the question of whether a corporation could engage in the practice of medicine and handed down a decision which should be of

interest to organized medicine.*

The corporation involved in these proceedings was known as United Medical Service and had been incorporated as a Corporation for profit in 1930. It had an authorized capital of four hundred shares of common stock with a par value of \$100 per share. Its articles of incorporation set forth a number of objects for which it was organized, one of which was designated as "the promotion of individual and public health through the study and prevention of disease."

The Corporation in 1933 established a clinic for the avowed purpose of rendering low cost medical service for a fixed fee. It set up fully equipped offices to provide for the examination and treatment of physical and mental ailments of all sorts. Since that date it had continuously operated its clinic and offices, and apparently all the medical and surgical services rendered by or under the said institution, was rendered solely by physicians and surgeons duly licensed and registered to practice in the state. From time to time since the organization of the institution it had inserted in the public press, various paid advertisements. At least one of said advertisements had declared that the Corporation was not a charity, nor was it associated with any charity, or any philanthropic or educational institution. The said advertisement had specifically stated that the organization was operated for profit. The advertisement had set forth the amount of charges made by United Medical Service for examinations of the heart, lungs, eyes, ears, nose and throat and for other similar examinations, for laboratory examinations and x-ray examinations. It appeared that persons seeking examinations and treatment contracted for such services with the Corporation and paid direct to it the specified fees. The physicians and surgeons who actually rendered the care to the patients were employed on a salary basis by the Corporation. The Corporation itself had never made any attempt to obtain the license

to practice medicine.

A proceeding was instituted by the Attorney General on behalf of the people of the State in the nature of a so called quo warranto proceeding against United Medical Service, for the purpose of requiring the respondent to show by what right it was engaged in the practice of medicine. After various technical applications to the Court the parties to the proceeding stipulated to an agreed set of facts which were submitted to a Trial Judge. The Court after conducting an extended hearing determined that the respondent was guilty as charged and that under the law it was not entitled to engage in the practice of medicine. An appeal was taken by the Corporation from the judgment of ouster which was rendered against it, and upon said appeal the judgment was affirmed.

The Court in so ruling, said in the course

of its opinion:

The respondent Corporation earnestly contends that the ownership of a clinic, with offices where the treatment of disease is engaged in solely by licensed and registered physicians and surgeons who are employed by the Corporation, which receives the fee charged the patients, does not constitute the practice of medicine by the Corporation. The respondent argues that the fact that the contract of payment for the medical services to be rendered is made between the Corporation and the patient does not change the professional relationship between the patient and the various licensed and registered practitioners who treat him in the Corporation's office. * * *

In the recent case of Dr. A., dentist, v. A. (196 N. E. 799) this Court observed that the practice of a profession is subject to licensing and regulation and is not subject to commercialization or exploitation. "To practice a profession," the Court said, "requires something more than the financial ability to hire competent persons to do the actual work. It can be done only by a duly qualified human being, and to qualify something more than mere knowledge or skill is essential. No Corporation can qualify."

Our attention is directed to the fact that no provision of the Business Corporation Act, or of any other Statute of this State prohibits a Corporation organized for profit from rendering any and all medical services by duly licensed and registered physicians and surgeons. The misuse of power sought to be coerced in this case is a right and privilege which individuals

^{*} People v. United Medical Service (200 N. E. 157).

only may obtain by compliance with the provisions of the Medical Practice Act. * * * Manifestly the Business Corporation Act in authorizing the formation of corporations for any lawful purpose' does not purport to include the practice of the learned professions such as

medicine and law.

The final contention of the respondent Corporation, which requires consideration, is that in so far as the Medical Practice Act prohibits it from practicing medicine by employing licensed physicians and surgeons, to that end the Act is an unreasonable exercise of the police power and transcends the due process of law clauses of Sections 2 and 14 of Article II of the Constitution of this State and the first section of the Fourteenth Amendment to the Federal Constitution. The police power of the State includes power to enact comprehensive, detailed, and rigid regulations for the practice of medicine, surgery, and dentistry. There is no right to practice medicine which is not subordinate to police power. The Medical Practice Act of 1923 recognizes the different methods of treating human ailments and prescribes reasonable and uniform regulations for testing the qualifications of persons who desire to practice medicine in all its branches, and persons who desire to practice some limited form of treating human ailments.

It is interesting to note that only a month previous to the decision in the United Medical Service case, the Supreme Court of another midwestern state made a ruling very similar to that case which affected the practice of dentistry.* In that case alayman was convicted of being a partner in the operation of a dental parlor, without being licensed as a dentist. The records showed that the accused had for a number of years operated a dental parlor under the name, "New System Dentist." In spite of the fact that all dental work done at the said dental parlor was performed by regularly licensed dentists, three of whom were in the employ

Regular inspection of all students, regardless of age, by teachers at Shore Road Academy each morning makes the health record of the school "pretty hard to beat," Dr. Charles M. Fisher, academy physician, declared on March 20 at a Parent-Teacher Association meeting in the school, 9249 Shore Road, Brooklyn.

Describing the system of inspection, he said: "Rarely does an ill student here infect an entire class. Our bus drivers are trained to estimate the physical condition of the students in the morning. He does not allow a student to leave the bus until the student has been inspected by Miss Helen E. Red-

of the accused, the Court sustained the judgment of conviction, holding that he had engaged in the practice of dentistry contrary to law.

Treatment of Lymphosarcoma

A woman, fifty-five years of age, consulted a physician who specialized in x-ray and radium work with respect to complaints of swelling in the neck and around the nose.

Upon examining her he diagnosed her condition as lymphosarcoma. He suggested radium and x-ray treatment and administered to her over a period of nearly a year sixty radon treatments. The condition of the patient, however, did not improve by reason of the incurable nature of the condition from which she was suffering. Finally she stopped coming for treatments.

Shortly after the last treatment rendered to her by the doctor, a malpractice action was instituted against the doctor in which the charge was made that the treatment by radium and x-ray had aggravated her condi-

tion and had made an invalid of her.

Before the case could ever be reached for trial, however, the patient died, approximately a year and a half after the doctor last saw her professionally.

Shortly after the said death the same attornev instituted another action against the doctor in which the plaintiff was the administrator of the patient, charging him with having wrongfully caused the death of the patient by reason of the alleged negligent treatment.

Just as said case was about to be assigned to a Trial Judge the plaintiff's attorney agreed to discontinue the case, thereby indicating that he was unable to establish by proper proof that the treatment complained of had caused the death of the patient.

ding, co-headmistress.

"Miss Redding looks for pallor, or red eyes, and immediately telephones the doctor if she is suspicious. Should she miss a student, the latter is inspected again in the classroom by the teacher, who is well acquainted with the student's normal physical condition."

Not only are the students inspected, Dr. Fisher said, but also the help in the kitchen and the teachers.

"Many ailments have been traced to the kitchen," he said. "Watch those who cook your food, and especially those who handle uncooked food."

^{*} People v. Carroll (261 N. W. 861).

Across the Desk

New York's Rich Menu of Diversions

It is a pretty safe bet that few doctors from out of town who attend the state medical meeting will go home without seeing some fine theatrical performance, or a rattling good show, or a concert or athletic exhibition, or without eating at some of the famous hotels, restaurans, night clubs, and colorful dining and dancing rendezvous.

New York offers its best at this time of year, for the successes are still running, and the second-rate offerings have been weeded-out. The streets are not lashed by winter's gales, or baked by summer's heat, and everything is at the visitor's command. A good plan will be to come a day or so early and stay the entire week, in order to give proper attention to the splendid scientific medical program, yet take this rare chance to enjoy New York's attractions. The home practice will go all the better for a little relaxation.

The Leading Plays and Shows

The theatrical menu is really remarkable. Helen Hayes is drawing capacity audiences at the Broadhurst Theater in "Victoria Regina," and another stage star, Jane Cowl, is appearing at the Music Box in "First Lady." An excellent Bernard Shaw play is on at the Martin Beck Theater, where Katharine Cornell presents "Saint Joan." George M. Cohan, a perennial favorite, is to be seen at the Alvin in "Dear Old Darling," and Richard Barthelmess, whom we all have admired on the screen, appears in person at the Lyceum in "The Postman Always Rings Twice."

We can never go far wrong in taking in a play put on by the Theatre Guild, and we now have two—"Call it a Day," with Gladys Cooper and Philip Merivale, at the Morosco, and "End of a Summer," with Ina Claire and Osgood Perkins, at the Guild Theatre. Both are comedies. An hilarious farce called "Three Men on a Horse" is at the Playhouse, and a very funny knockabout Hollywood lampoon, "Boy Meets Girl," is playing at the Cort. Those who like a gangster play will find a spectacular thriller entitled "Dead End"

producing shivers at the Belasco. "Lady Precious Stream," at the 49th Street Theatre, is so popular that it has to play three matinees a week.

The "Ziegfeld Follies" disports itself at the Winter Garden and "George White's Scandals" does the same at the New Amsterdam Theatre.

So there is something to suit every taste in the theatrical line. The best shows are often "sold out" at the box office window, but tickets may be still available at the various hotels. The seats may cost more, but this device keeps the city folks from taking all the best places.

A star musical event on the 29th will be a farewell concert to Toscanini at Carnegie Hall. There will also be a concert at Carnegie Hall on the 27th by the National Orchestral Association.

The circus will be in full swing all the week at the Madison Square Garden.

Crack Places to Dine and Dance

The big town has so many glamorous places to eat, dance, and listen to music that a few bits of information are absolutely essential to the stranger within the gates, to save time and save getting into the wrong ones. As the convention meets at the Waldorf-Astoria, it might be mentioned that this hotel has three dining rooms-the North Grill, where breakfast may be had for \$1; lunch, \$1.50; and dinner, \$2; the Empire Room, with dinner, dancing, and entertainment, at \$2.50 or a la carte; and the Sert Room, lunch and dinner a la carte, with music. Members who visit the Plaza will find in the Persian Room one of the smartest and most charming places for supper dancing in town. Evening dress is expected. Dinner is \$3.50, lunch \$2.

Pierre's is of course one of the crack hostelries; luncheon and dinner in the main dining room, with music, are \$1.50 and \$3; while dinner a la carte, with orchestra and dancing, will be found in the Neptune Room. Better dress. The Stork Club, at 3 East 53d St., is a noisy and popular after-theatre rendezvous that will not

be soon forgotten. A visit is worth while, too, at the St Regis, where dining with orchestra, dancing and entertainment will be found in the King Cole Room and the Maisonette Russ at \$3.50 and \$3, and a la carte after the theatre, with \$1.50 cover charge. The Savoy Plaza serves luncheon, dinner and supper a la carte in the Cafe Lounge, with dancing during the cocktail hour and after the theatre. The minimum check at supper is \$1.50 on week days and \$2.50 Saturdays. In the Savoy Room luncheon and dinner are served at \$2 and \$3. and also a la carte, with concert music during dinner. In the Breakfast Room breakfast runs from 75 cents to \$1.25, luncheon is \$2, and dinner \$3, or a la carte.

Guy Lombardo and his orchestra are playing at the Roosevelt Grill, where dinner is served at \$2; luncheon in the main dining room is \$1. At the Barclay an excellent luncheon, with music, is priced at \$1-\$1.50 and dinner, with music, at \$1.50-\$2.50. The Lexington has a wide range, from lunch at 60 and 85 cents, to dinner at \$1.25-\$2. The Montclair has dinner at \$1.25 up with two orchestras, dancing,

and entertainment; luncheon, 65 cents up. The Shelton has an a la carte dinner in the grill with music, a \$1 dinner in the main dining room, and luncheon at 45 to 75 cents.

Colorful Corners for the Later Hours

Greenwich Village has an atmosphere all its own. Some of its spots worth mentioning are Mori's, at 144 Bleecker St.; the Black Cat, at 557 West Broadway; the Village Barn, at 52 West 8th St.; and the Greenwich Village Inn, at 5 Sheridan Square. Among the Harlem clubs we might pick the Cotton Club, at Lenox Ave., and 142d St.; the Ubangi Club, at 7th Ave. and 131st St.; and Dickie Wells, at 169 West 133d St. Those who like a foreign atmosphere will find a bit of Cuba at El Toreador, 7 West 110th St.; a glimpse of Montmarte at Bal Musette Bedou, 301 West 46th St.: a breath of Russia at the Russian Kretchma, 244 East 14th St.; a taste of Scandinavia at Valhalla, 141 West 54th St.; and a whiff of Spain at El Chico, 80 Grove St., and Dimitri's Club Gaucho, at 245 Sullivan St. Late evening is the time for all of these.

Suicide of European Scholarship

A RECENT ADDRESS by President William A. Neilson, of Smith College, is of interest to all members of the learned professions, and especially to those engaged in scientific pursuits, such as medicine. For President Neilson has the vision to look across the world and see the changes affecting the men of learning in all lands, and how they react upon our own position in this country. He spoke before the American Association for the Advancement of Science, under the auspices of the National Council of Phi Beta Kappa, and had the happy idea of harking back nearly a hundred years to the address of Ralph Waldo Emerson before the Harvard Chapter of Phi Beta Kappa on "The American Scholar."

Emerson looked forward to the time when "our day of dependence, our long apprenticeship to the learning of other lands," would draw to a close, and President Neilson rejoices that "the day he foresaw has arrived, and American scholarship now stands on its own feet." Indeed, "in many branches, especially in the field of science and invention, it has taken the lead." "Tragic factors" also are contributing to our own advance.

For one thing, the terrific slaughter of the flower of European youth in the officer class in the World War took the very men who today would be enriching the ranks of scholars and scientists over there, while our own country suffered no comparable loss. Again, "in Italy and Germany and Russia forms of government have established themselves that require for their maintenance an attitude toward freedom of thought and speech which is devastating in its effect on intellectual progress."

The "poisonous procedures" of those governments are having "baneful effects on the science and scholarship of nations that were formerly leaders in these fields." They are "committing national intellectual suicide," and "the torch is falling from their hands."

Genius Knocking at Our Door

Not only that, but "hundreds of the ablest and freest spirits are fleeing from those unhappy countries" to benefit America and other lands. Many are knocking at our doors, and it will be "a profound mistake" if we fail to offer generous hospitality to these "who come to us stript and ruined, but with hands laden with the inestimable riches of the spirit." So we have the double advantage of an accession of scholars from the Old World and of a new army of native scholars flooding into our schools, libraries and laboratories in numbers the world has never seen before, and as a result "we find ourselves faced by a challenge so stupendous that it is inconceivable that a worthy effort will not be made to meet it."

Men often are strangely blind to the changes going on around them, which are seen more clearly by historians of a later time, and we are fortunate to have a man like President Neilson who can see and reveal the world currents and cross-currents sweeping around us.

A Danger to the Medical Specialist

Emerson foresaw, too, a hundred years ago, a danger of advancing scholarship which threatens the medical scientist of today, the danger of becoming immersed in a specialty, of becoming merely a fine piece of mental scientific apparatus. Emerson put it in terms of everyday life. "The planter," he said, "who is Man sent out into the field to gather food, is seldom cheered by any idea of the true dignity of his ministry. He sees his bushel and his cart, and nothing beyond, and sinks into the farmer, instead of Man on the farm. The tradesman scarcely ever gives an ideal worth to his work, but is ridden by the routine of his craft, and the soul is subject to dollars. The priest becomes a form; the attorney, a statute-book; the mechanic, a machine; the sailor, a rope of the ship. In this distribution of functions, the scholar is the delegated intellect. In the right state, he is Man Thinking."

This applies particularly to the medical scientist. The vast increase of medical knowledge tends to crowd all other interests out of his life. The individual worker, unable to master everything, becomes a specialist, he "knows more and more about less and less." He is driven "into a smaller and smaller corner of the field," says President Neilson, and he urges that "all the more necessary, therefore, is Emerson's exhortation to him to seek a variety of interest, to take time to stand back from his detailed activities and see them in relation to the whole progress of knowledge, to stand back from the acquisition of knowledge and see it in relation to the needs of society as a whole and to himself as a complete man."

The Public's Right to Know

Another problem facing the medical scientist is the question of popularizing the results of his work. It comes up continually, and confronts not only the physician, but scholars in every field. It is natural and right that the investigator "should seek his first audience among his fellow scholars." submit to their judgment and desire their approval, says President Neilson. Until he has that approval, we are warned, there is danger in appealing to the lay public. But, adds President Neilson, the intelligent public has its rights too. It has its right to share the results of scientific inquiry, and to be given this share "by the leaders of science instead of by the camp-followers." Society "ought to be protected against a merely journalistic presentation of what is discovered." Scientific men sometimes speak unjustly of the "vulgarization" of reports of scientific progress. If such reports are vulgarized, it is because the scientist will not or can not provide a readable account for publication, for the newspapers and magazines always prefer to quote a first-hand authority.

If the scientist will not speak for himself, then the press and public will be served by someone else—"if not by those who know, then by those who half-know." That the laity be correctly informed is of immense importance, and "that it can be done with dignity and no sacrifice of scholarly integrity is abundantly proved by the example of such men as Tyndall, Faraday, and Huxley."

Literary "Hocus-pocus" and "Jargon"

You may say that many scientific matters are too difficult to explain to the general reader, but President Neilson makes the rather neat retort that "the most difficult ideas to explain to the layman are often those that are obscure also in the mind of the professional." We may think, too, that the scientific terminology is unintelligible to the laity, but he replies again that "it is often unnecessary hocus-pocus." He gives a dig at certain medical practitioners who seek to "gain prestige among the ignorant by using Greek and Latin terms for phenomena with perfectly good English names," while "the sociologists are building up a terrible jargon, though I have yet to find in their books an idea which is not capable of being explained in standard English." And he

declares, as a matter of fact, that the attempt to write for the laymen "can be a powerful agent in clarifying the thought and purifying the style of almost every branch of study."

Now if some medical man will give a free

and frank expose of the rights, duties, and shortcomings of college presidents, perhaps that will be a slight return for the undoubted service that President Neilson has done for the medical and other professions

Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Asenue Brooklyn NY Acknowledgment of receipt will be made in these columns and deemed sufficient notification Selection for review will be based on ment and the interest to our readers

RECEIVED

Localized Rarefying Conditions of Bone as Exemplified by Legg-Perthes' Disease, Cosgood-Schlatter's Disease, Rummell's Disease and Related Conditions By E. S J. King, M D Octavo of 400 pages, illustrated Baltimore, Wilham Wood & Company, 1935 Cloth, \$7 50

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, etc Volume 4, 45th Series, 1935 Edited by Louis Hamman, M. D. Octavo of 331 pages, illustrated Philadelphia, J. B. Lippincott Company, 1935 Cloth, §300

Essentials of Psychopathology. By George W Henry Octavo of 312 pages Baltrmore, William Wood & Company, 1935 Cloth, \$400

New Pathways for Children with Cerebral Palsy. By Gladys G Rogers & Leah C. Thomas Octavo of 167 pages, illustrated New York, The Macmillan Company, 1935 Cloth, \$2 50

The Medical Treatment of Galibladder Disease. By Martin E Rehfuss, M.D. & Guy M. Nelson, M.D. Octavo of 465 pages, illustrated Philadelphia, W.B. Saunders Company, 1935 Cloth, \$5.50

Short Wave Therapy and General Electro-Therapy. By Heinrich F. Wolf, M.D. Octavo of 96 pages, illustrated New York, Modern Medical Press, 1935 Cloth, \$250

Immunology. By Noble P Sherwood, M D Octavo of 608 pages, illustrated St Louis, The C V Mosby Company, 1935 Cloth, \$6 00

Infant Nutrition: A Textbook of Infant Feeding for Students and Practitioners of Medicine. By Williams McKim Marriott, M D Second edition Octavo of 431 pages, illustrated St Louis, The C V Mosby Company, 1935 Cloth, \$450

Diseases of Women. By Harry S Crossen, M D and Robert J. Crossen, M D Eighth edition Quarto of 999 pages, illustrated St Louis, The C V. Mosby Company, 1935 Cloth, \$10 00

Aids to Medicine. By James L Livingstone Fifth edition 16mo of 422 pages Baltimore, William Wood & Company, 1935 Cloth, \$150

High Blood Pressure and Its Common Sequelae By Hugh O Guncwardene, MB Octavo of 172 pages, illustrated Baltimore, William Wood & Company, 1935 Cloth, \$300

Rontgenology the Borderlands of the Normal and Early Pathological in the Skiagram By Alban Kohler, M D Second edition Quarto of 681 pages, illustrated Baltimore, William Wood & Company, 1935 Cloth, \$1400.

A Practical Handbook of Midwifery and Gynaecology for Students and Practitioners. By W. F. T. Haultam, F.R.C.S. and Clifford Kennedy, F.R.C.S. Second edition. Octavo of 356 pages, illustrated Baltimore, William Wood & Company, 1935. Cloth, \$5.25

Fundamentals of Biochemistry in Relation to Human Physiology. By T R Parsons, M Sc Fifth edition Duodecimo of 453 pages, illustrated Baltimore, William Wood & Company, 1935 Cloth, \$300

Sensation: Its Mechanisms and Disturbances an Investigation of the Most Recent Advances Association for Research in Nervous and Mental Disease, volume XV of a Series of Research Publications Octavo of 541 pages, illustrated Baltimore, The Williams & Wilkins Company, 1935 Cloth, \$750

The Modern Treatment of Burns and Scalds. By Philip H Mitchiner, MD. Octavo of 64 pages, illustrated Baltimore, William Wood & Company, 1935 Cloth, \$200

For and Against Doctors An Anthology compiled by Robert Hutchison and G M, Wauchope Duodecumo of 168 pages Baltumore, William Wood & Company, 1935 Cloth, \$2 00

The Parathyroids in Health and in Disease. By David H Shelling, M D Octavo of 335 pages, illustrated St Louis, The C. V. Mosby Company, 1935. Cloth, \$500.

REVIEWED

Handbook of Anaesthetics. By J. Stuart Ross, M.B., and H. P. Fairlie, M.D. Fourth edition. Duodecimo of 299 pages, illustrated. Baltimore, William Wood & Company, 1935. Cloth, \$4.00.

Evidently a study book for there are blank pages for notes—a good idea by the way. The thirty pages on local and the twelve on spinal anesthesia are mere inclusions. The distinction of the book lies in the attention given to the usually insufficiently stated subject of the difficulties and dangers whose discovery and treatment are the really essential trick in artistic anesthesia. It is this which is so properly emphasized. "We propose to discuss all the changes observable in the patient's condition, the causation of which can be traced to the surgical condition present or the procedure of the surgeon," is a neat way of sharing responsibility. Thirty-eight pages are given to the care of the patient:—his preparation for the anesthesia and observation during, interference with his safety and susceptibility to the various agents. It makes interesting reading to discover the author's (Dr. Ross assumes the responsibility for this edition) practice in handling the important operations. To Anoxemia thirteen pages are devoted; to Accidents, eleven; to Sequelae, ten. Thus seventy-two pages in all are taken up with consideration of the safety of the patient. Rather curiously, no mention is made of Charting, so important a means to learn and remember the changes of condition—what might be called the physiopa-thology of anesthesia. The tree of knowledge has many leaves. Even the mere recording of the course of an anesthesia is as valuable a job (how many regard it as such!) as is the postanesthetic study. Magill's nasal tubes are not mentioned, nor resuscitation apparatus, nor Cyclopane.
A. F. Erdmann

The Biochemistry of Medicine. By A. T. Cameron, M.A., and C. R. Gilmour, M.D. Second edition. Octavo of 518 pages, illus-Baltimore, William Wood & Com-

pany. 1935. Cloth, \$6.00.

Among the large number of text books on biochemistry it is difficult to select one which would suit the practicing physician better than this volume. Written under the combined authorship of a biochemist and a physician it naturally presents the picture of the applications of biochemistry to medicine. Almost one-half of the book is devoted to a description of energy metabolism and the pathological chemistry of carbohydrates in diabetes. Another important section of the book deals with salt, water and protein

metabolism and their direct bearing upon the picture of nephritis. There are small sections devoted to the inorganic constituents of blood, the subject of respiration, endocrines and vitamins. Every chapter closes with a short and useful summary. The book is very well written and nicely arranged. W. S. COLLENS

Clinical Tuberculosis. Edited by Benjamin Goldberg, M.D. Two volumes Fully Illustrated with over 640 Half-Tone and Line Engravings and 9 Full-Page Color Plates.

Octavo. Philadelphia, F. A. Davis Company, 1935. Cloth, \$22.00.

This work spendidly conceived is even more splendidly executed. In two octavo volumes of over 700 pages each the subject of tuberculosis in all its phases is presented by a group of specialists in every branch of medicine and surgery under the able editorship of Benjamin Goldberg of the University of Illinois College of Medicine. In the limits of this review it is possible to comment on only a few of the many excellent chapters in this exhaustive treatise.

G. J. Drolet discussed the epidemiology of tuberculosis, emphasizing the facts of sex, age, urbanization, color, occupation, housing and race, and proving by his presentation that there may be a fascination in

statistics.

R. Mellon reviews the morphology of the tubercle bacillus from the standpoint of its

newer biology.

Pol. Coryllos (chapter V) discusses the pathologic physiology of the tuberculous lung, according to present day thought and presents the facts of the disturbances of gas exchange, circulation, mechanics and physiochemistry.

Chapters VI-XI are devoted to diagnosis in its several phases: Laboratory tests, physical diagnosis and X-ray findings. In the latter, H. E. Potter of Chicago recognized three types of earliest demonstrable lesions, namely, simple diffuse homogeneous shadow density, single blotchy area, and granular or flocculent shadows of numerous tiny consolidations. The value of stereo films is compared with that of two films in greater than stereo shift to be viewed separately and the opinion given, that the two methods are equally diagnostic. An adequate test by a number of experienced observers in a large series failed to establish any essential difference in the reading for tuberculosis. Needless to say, the stereo method is of material aid in orientating superimposed lesions.

Edgar Mayer contributes a chapter on the Salt restricted diets of Gerson and HerrNumber 81 BOOKS 6

manusdorfer-Sauerbruch. The details of these diets are given, their ultimate value frankly not stated in view of the need of further research, but the personal opinion is advanced that these dietaries represent an alternative therapy which is capable of rais-

ing the resistance of patients.
Surgical measures suggested in the hope of providing more functional rest as well as the closing of cavities are discussed in the next few chapters by R. C. Matson, R. W. Matson, Pol. Coryllos and C. A. Hedblom. The treatments described are Artificial pneumothorax, Intrapleural pneumolysis, Oleothorax, Phrenic neurectomy, Apical collapse, and Extrapleural thoracoplasty.

These chapters constitute a very fine feature of this important publication. R. C. Matson's summary of the value of pneumothorax treatment is sound, well-balanced and yet stimulating. The results of this treatment appear to justify the utilizing of pneumothorax treatment carlier in the course of inherculosis than has been generally customary.

Mayer on Heliotherapy (Chapter XXV) stresses the cautions to be observed in the use of sunlight, quartz and carbon are therapy in active pulmonary lesions, namely, only in the late stages of the disease and never in cases with high temperatures.

Blatt and Greengard contribute a special chapter on the Tuberculosis of Children and this is followed by a splendid account of Tuberculosis Meningitis by Abraham Levinson. He emphasizes the observation that this tragic disease is practically never primary, but is secondary to foci in other parts of the body.

Other chapters follow on Tuberculosis of the pleura, intestinal tract, anus, peritoneum, urogenital tract, ear, sinuses and pharynx, eye, skin, bones and joints; and chapters on Tuberculosis in association with pregnancy, Diabetes, Thyroid gland, and Cardiovascular system. And a final chapter on the Psychopathology of the tuberculosis.

In sum, a work splendidly conceived and

even more splendidly executed.

FRANK B. CROSS

The Autonomic Nervous System. Anatomy, Physiology and Surgical Treatment. By James C. White, M.D. Octavo of 386 pages, illustrated, New York, The Macmillan Company, 1935. Cloth, \$7.00.

A monograph carefully planned and equally carefully executed which the reviewer has read with considerable pleasure. All individuals contributing towards the publication of this volume should feel a just pride in its consummation. It is a credit to both the author and publisher.

In its general plan it is divided into three parts dealing with the historical development of the knowledge of the involuntary nervous system (Part I); the consideration of the various clinical conditions (Part II); and a detailed presentation of the operative technique. (Part III.) The author possesses the capacity for pithy condensation in a rare degree, presenting in a direct simple fashion within 382 pages a stupendous amount of information.

No pains have been spared to increase its value to the student. It is illustrated in an extraordinarily generous fashion, a total of 96 pertinent, instructive, original drawings and greatly modified copies being placed appropriately throughout the various pages. The free use of drawings must add greatly to the cost of publication, but form a real feature of the book.

Numerous references to the literature are appended to each chapter, a delight to every student to whom this "Textbook" should prove to be highly instructive.

HAROLD R. MERWARTH

Puerperal Gynecology, By J. L. Bubis, M.D. Octavo of 199 pages, illustrated. Baltimore, William Wood & Company, 1935. Cloth, \$3.50. Dr. Bubis has attempted a complete re-

view of this subject with which he has had

an unusual experience since 1916.

His book is subdivided into four sections to conform with his interpretation of modern obstetrics. First, the prenatal period, in which abnormalities and infections should be recognized and treated. The second period is relegated to the delivery; in this section he makes a comprehensive review anesthesias and analgesias, and the indications for all types of operative procedures. Following the birth of the child comes the very important phase, namely, examination and repair of the genitalia not only for new lacerations but also old lacerations. Thus the author feels that he is saving the individual years of invalidism and cutting down on the cost of the subsequent operation. The fourth phase is the after care of said patient. Here the author outlines the treatment of the various complications which . might occur.

He has had many subsequent deliveries following extensive repair without any serious complications,

In this book the author minutely describes his operative procedures using illustrations where possible.

The book should be interesting particularly to those doing obstetrics.

MORRIS GLASS

The Treatment of Rheumatism in General Practice. By W. S. C. Copeman, M.A. Second edition. Octavo of 228 pages. Baltimore, William Wood & Company. 1935. Cloth,

\$3.25.

The author has included much of value Acute rheumatic fever and chorea with treatment is discussed in part one. Part two treats in general terms of more chronic conditions usually involving pain and disability, acute muscular rheumatism, lumbago, sciatica, neuritis, rheumatoid arthritis, osteo-arthritis and spondylitis. This is indeed a broad field.

In part three the author ably discusses the methods to be used to benefit these patients who present themselves for care. All means used to relieve or cure these conditions are given; medicinal, dietetic, vaccines and non-specific protein therapy, physical methods, manipulation, baths, endocrine therapy, in fact all aspects of methods of treatment.

This volume is up-to-date and comprehensive and will prove of value to anyone who will review these conditions with the author. HENRY M. Moses

The Medical Man and the Witch During the Renaissance. By Gregory Zilboorg, M.D. Third series, volume 2. Duodecimo of 215 pages, illustrated. Baltimore, The Johns Hopkins Press, 1935. Cloth, \$2.50.

The period of the Renaissance presents a most gruesome picture in the annals of history as regards witchcraft and the maniacal persecution of witches. In this book, a series of three lectures, Dr. Zilboorg treats with thoroughness the subject of witchcraft and the birth of modern

psychiatry.

The first lecture covers the factors stimulating the propagation of demonology through the influence of the teachings of Luther and St. Augustine. The greater part of this discourse is devoted to a book, Malleus Maleficarum (The Witches' Hammer), written by two Dominican monks, Johann Sprenger and Heinrich Kraemer, members of the Inquisitors appointed by Pope Innocent VIII to try witches. This publication was endorsed by the Dean and Faculty of the University of Cologne in 1487. These monks attempted to prove the existence of witchcraft and witches, setting forth cases for purposes of demonstration and elaborating fully on the prosecution and sentencing of culprits in the name of Justice to the extreme penalties of torture and burning at the stake.

The second lecture embraces the relative positions of medicine and sorcery during the sixteenth century. Although much time was devoted by the scholars and teachers of this period to scientific research in medicine and to the rediscovery and translation of ancient

texts, nevertheless, very little progress was made in the study of mental diseases and the development of a sound medical psychology. In fact, the differentiation between the mentally sick and witches became increasingly obscure, and eventually the two terms became synonymous in the minds of the laity. The medical profession at the close of the sixteenth century had either shied and avoided the problem or had left it to the jurist and the public at large. Among the few pioneers who combatted the universal psychosis of demonic philosophy were Juan Luis Vives (1492-1540), Levinus Lemnius (1505-1568) and Cornelius Agrippa (1486-1535), teacher of Johann Weyer (1515-1588).

The life of Johann Weyer, the father of psychiatry, his teachings struggles are delineated in the last lecture. Weyer studied under Cornelius Agrippa until he was nineteen years of age. He then went to Paris where, under the pseudonym of Johannes Piscinarius, he wrote his first masterpiece, De Praestigiis Dacmonum, in 1562. In this book, he thoroughly and carefully exposed the true nature of witches and the possessed. Weyer refuted the traditional references based on Biblical extracts and tried to convince his contemporaries that being bewitched was not a crime but a disease requiring medical attention. He was the first physician to point out the relationship between psychology and medicine. Although he is usually characterized as a humanitarian, he was also a clinician of no mean ability.

This book should prove of great value to the student of the history of medical psychology. WILLIAM RACHLIN

Recent Advances in Diseases of Children. By Wilfred J. Pearson, D.M., M. C. & W. G. Wyllie, M.D. Third edition. Duodecimo of 566 pages, illustrated. Philadelphia, P. Blakiston's Son & Co., 1935. Cloth, \$5.00.

This is a nicely written book which shows adequate acquaintance with American Pediatric literature as well as that of the authors'

own country.

If one wishes a brief review of general pediatrics, from the English standpoint, he

can get it here.

The conservatism of the authors in feeding may be purely temperamental but one wonders whether American children do not have a better nutritive chance because materials are actually unavailable in England or limited by financial reasons.

On the whole their feedings differ from ours, no more than ours from each other, but most of us would not be satisfied with beginning "Cod Liver Oil by the end of the third month" nor with "2 teaspoonfuls of orange juice 2 or 3 times a day."

W. D. Ludlum

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Nature has endowed Switzerland with a marvelous group of mineral springs, the use of many dating back to the very beginning of civilization. The wide range of these hydro-mineral resources and individual characteristics of each as to therapeutic value, are rivalled by but a few watering places in other countries.

The springs of St Moritz in the Upper Engadine, according to Dr. med H. Keller, furnish indisputable proof of great antiquity, for when their pipes were replaced in 1853 there was found

at three and a half feet below the surface of the earth, well-preserved hollowed out trunks of three mighty larches which had obviously been employed for the springs. In these treetrunks, a number of bronze objects, swords, knives, needles, etc., were discovered. Scientists estimated them to be about 3000 years old, and



similar prehistorical finds were made in Baden (Argovie), Loéche-les-Bains (Valais), and Yverdon (Vaud).

The period of the Roman occupation, beginning in the year 58 B.C., represents the second stage of development of watering places in Switzerland. Spas flourished to a high degree, not only through the use of medicinal springs already known but also through discovery of others and particularly through the progress made in technical equipment and bath fittings. The thermal baths at Baden are an outstanding example of this. The bath hospital and the numerous surgical instruments dis-

covered there show how well the Romans understood how to utilize natural healing methods available through baths and even to combine them with surgery.

After invasions from the north put an end to Roman influences, appreciation of mineral springs suffered a temporary setback, but dur-



Photo by J. Feneratein

A popular trio of spas in the Lower Engadine, Switzerland—Tarasp Schuls Vulpera,





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ing the reign of Charlemagne, the baths increased in vogue. In the monastery of St. Gall there is still preserved the plan of a building of the year 820 in which a bathing establishment is designed. In the later Middle Ages and particularly at the time of the Renaissance, baths taken by people in normal health were considered as one of the chief "amenities of life."

Watering places now increased rapidly and in addition to spas of prehistoric foundation, there are records of the establishment of Ragaz-Pfaefers in 1038 and 1384; Tarasp and Val Sinestra, Lower Engadine, in the 15th Century; Bex, Vaud, salt spring in 1554 and sulphur spring in 1717; and Gurnigle near Berne, in 1561. The springs of Passug near Chur, were known in 1562 and rediscovered in 1863. The mineral spring of Rheinfelden, called Kapuzinerquelle, was in use as early as 1664, and exploitation of the Rheinfelden saltmines and opening of the brine baths dates from 1846.

There are one hundred spas in the Alpine regions, twenty-six in the Jura region, and thirty in the Swiss high plateau. Springs with over 20 degrees centigrade are called thermal waters, and those with lower temperature, cold springs.

The mineral constituents of these springs are chiefly—calcium, potassium, sodium, lithium, magnesium, iron silicum, aluminum, sulphur, phosphorous, borax, chloride, bromide, iodine, fluoride, carbonic acids, sulphuretted hydrogen, and nitrogen. The bases and the acids can be disassociated from one another or compounded with salts. The most important of these are common or kitchen salt, carbonate of soda, magnesium and iron, sulphate of soda, sulphate of sodium, gypsum and sulphate of magnesium, iodine salts and arsenic compounds. The importance of borax and lithium has not yet been sufficiently investigated.

Where the mineral waters come in contact with organic substances on the surface of the earth and slowly spread, they deposit a part of their salts; in this way mud and peat are formed, which are both used for baths and local applications.

The majority of the springs are radio-active, having emanations either in the water itself, in their sediments or their gasses. Radio-active springs contain but little mineral substance, and are connected with the deepest strata of the earth.

The ten classified kinds of mineral waters, according to degree of mineralization, predominant element, and temperature, are—

(1) Feebly mineralized or simple cold waters, containing less than 0.5 gr. of solid constitu-

ents per litre, and less than 1.0 gr. of carbonic acid. Switzerland has forty such springs, the most important of which are Aigle, Disentis, Knutwil, Romanel, and Weissbad.

(2) Akrato-thermal or simple thermal waters, "Wildbäder," containing to the liter less than 0.5 gr. of solid constituents, and a temperature above 20 degrees centigrade. Ragaz - Pfäfers features such a spring which compares with Badenweil, Gastein, Wildbad, and a number of other spas in foreign countries.

(3) Earthy vaters, containing over 0.5 gr. of solid constituents to the liter. These are divided into carbonate and gypsum waters, according to the predominance of

carbonic and sulphuric earth. Some of the most important watering places with these features are Hennicz-les-Bains, Montreaux, Meltingen, Sissach, Reinfelden-Kapuziner and Magdener, Yverdon, Tenigerbad, Andeer, Grimmialp, Loéche-les-Bains, and Vals-Platz. The springs in the last two resorts are thermal. This category of spas compares with such foreign watering places as Thonan, Vittel, Wildungen, etc.

(4) Alkaline waters, containing over 0.5 gr. of solid constituents per liter. The predominant salt is carbonate of sodium. Several of these springs contain iron, bromide, iodine, borax, and lithium. There are nine of these in Switzerland. Tarasp-Schuls-Vulpera, Passug, and Oberiberg, are the most important. Neuenahr, Vichy, Enis, Franzensbad, Karlsbad, Marienbad, etc., are rivals with similar properties in other countries.

(5) Sulphur waters, containing sulphate of sodium, sulphate of calcium, and sulphuretted hydrogen. Some are cold and others warm, often containing chloride and sulphate. There are sixty-eight springs of this nature, of which twenty-four are warm. Among the most important are Baden, Schinznach, Lavey-les-Bains, Yverdon, Alvaneu, Bex-les-Bains, Gurnigel, Lenk, Lostorf, Heustrich, and Schwefelberg Bad.



Magnificent Tamina Gorge near Ragaz-Spa in Eastern Switzerland—an outstanding tourist attraction.

(6) Common salt or brine baths, containing over 1 gr. of common salt to the liter. Bromide, iodine, and carbonic acid are often found in these springs. Such saturated waters in Switzerland are found at Bex-les-Bains, Rheinfelden. Rheinfelden-Ryburg, a n d Schweizerhall, which are used for the extraction of salt as well as for brine baths. They compare, for instance, with Baden-Paden, Biarritz, Homburg, Ischl, Kissingen, Nauheim, Wiesbaden, and other such foreign springs.

(7) Iodine waters, containing at least 0.001 gr. of iodine salts to the liter. The iodine is mostly found compounded with chloride of sodium in common salt, alkaline,

and earthy waters found at Tarasp-Schuls-Vulpera, Rheinfelden, Passugg, Bex-les-Bains, and Schinznach.

(8) Chalybeate or iron waters, containing 0.01 gr. and more of farruginous salts, in which iron is the main curative agent. In Swiss springs the iron is found in the form of bicarbonate. They are classed as alkaline, earthy, muriatic, saline, and carbonic waters, according to predominating element. Iron waters are very numerous in Switzerland, especially in the Alpine regions, and particularly in the Grisons. Most important of this type of spa are St. Moritz, Tarasp-Schuls-Vulpera, Passugg, Fideris, Lenk, Morgins, Acquarossa, and Franzensbad is one of the foreign rivals.

(9) Arsenical waters, containing at least 0.0002 gr. of arsenic. In Switzerland arsenic is found with the carbonates and sulphates of alkalis, alkaline earth, and iron. Val Sinestra and Acquarossa feature such springs.

(10) Springs containing crown salts are found in the little spa of Birmenstorf near Brugg.

(11) Peat and moor baths. They are classified according to their mineral and vegetable substances. In some localities the mud of the mineral waters is used for the packings. This is the case at St. Moritz, Schinznach, Andeer,

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Transportation and hotel rates have been reduced so drastically in Switzerland that a sojourn at one of its spas is now within easy reach of any purse.

Railway Boosts Motor Travel

Recognizing the rapid growth of automobile touring, the Canadian Pacific Railway has issued, this month, a new rotogravure booklet, "Motoring to Canada," edited by Col. Walter W. Hubbard, former Dominion resident.

The brochure, which is being distributed free, contains valuable information regarding motor vehicle regulations, customs and immigration laws, hunting and fishing in the eastern provinces, sports and recreation, as well as a listing of worth-while bungalow camps, hotels, inns and summer resorts. It may be obtained free on request from automobile clubs, chambers of commerce, or the Canadian Pacific offices in Buffalo and New York City.

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Easter visitors to Bermuda, back home again wreathed in smiles, make us feel that we have missed the best travel feature of early spring

Bermuda naturally is a particularly attractive image during winters frigidity, but its residents will extol the marvels of springtime in Bermuda until the American listener feels completely dejected about the last remnant of weather pride he has enshrined since the first balmy American spring day he can remember

"Of course," these Bermudans will console him, "you want to get away in winter when your weather is so bad and not wait until spring, which must be rather nice But the ideal months here in the islands include April and May Then the Easter likes are in bloom, all our flowers break forth in a riot of colors, the vegetation is brilliantly green, and the weather is perfect."

A little spring fever, even under leaden skies with chilly breezes flapping around the edges of spring coats, is akin to a mild dose of winderlust. To clippety clop behind a span of horses over Bermuda's white coral roads in golden sunshine is a most complete disassociation from harassed daily existence in northern cities. You'll come to distrust and dislike the half dozen motor trucks which are the only automobiles in all Bermuda. You'll be charmed with the absurdity of Bermuda's toy railway and sympathize understandingly with the years of effort devoted to gaining acceptance of it



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as a necessity. And, if you wait too long, you may see it abolished as an unnecessary adjunct to cycling and the carriages.

The climate attractions and beauties of Bermuda are unsurpassable in the spring. Regular sailings and special cruises follow the special ones over the Easter holidays. Disappointed "left-overs" will find accommodations and just as good times on any post-Easter sailings or cruises.

Railway Official Forecasts Heaviest Scottish Season

Scotland is preparing for the greatest travel season in her history. The large gains of 1935 over 1934 in travel to Scotland, are regarded as mere indications, beginnings of a huge wave of travel to the ancient Kingdom, which it is believed will reach an all-time peak this year.

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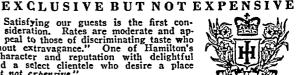
Intended as a resort for the average well-todiscriminating traveler, Gleneagles, a famous hotel opened on Perthshire by the London, Midland and Scottish Railway, soon began to attract many "castle" and "estate" people whose admiration for things medieval did not include the absence of heating methods and plumbing. So it became the recognized travel center of Scotland and its fame spread rapidly to all parts of the Empire and to other countries. Visitors to Gleneagles were predominantly Anglo-Saxon, and first rate provision

(Continued on page xxviii)

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(Continued from base xxx)

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Summer Events in Canada

The calendar of events in Canada this coming summer will reveal the growth of the Dominion in the fifty years since it was first spanned by the Canadian Pacific Railway. Most comprehensive of all will be the Vancouver Golden Jubilee, from July 1st to September 7th, showing the romance of that city's progress since its original selection as Pacific terminus of the railway and its emergence as one of the leading ports in the Orient trade

In the Banff-Lake Louise area, the Trail Riders and the Sky Line Trail Hikers of the Canadian Rockies will be active, and the Stoney tribe will stage its annual Indian Days at Banff.

In early July, the Calgary Stampede will re-enact in rodeo form the pioneer days of the Canadian West.

A schedule in detail will be published in a later issue.

Our National Parks via the Great Lakes

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"... There is nothing so American as our National Parks. Perhaps I can best express my thrill and delight by saying that I wish every American, old and young, could have been with me today.

"The scenery and wild life are native and the fundamental idea behind the parks is native.

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Travel Brevities

ON THE PASSINGER LIST of the Carinthia sailing for Nassau recently appeared the name of Dr. G. Lansing Taylor

OTHER "SAILORS" were Dr. Putnam Lloyd of New York and Dr Ellsworth Moody of Kansas City aboard the Monarch of Bernuda, and Drs. James Broun Scott and T J. Honeyman aboard the Berengaria.

Among guests of the Hotel Bermudiana in Bermuda during March, were Dr S P. Bartley of New York, Dr Frederick H. Moran of England, Dr. S. H. Baron of Connecticut, and Dr. F. L. Eames of Mass.

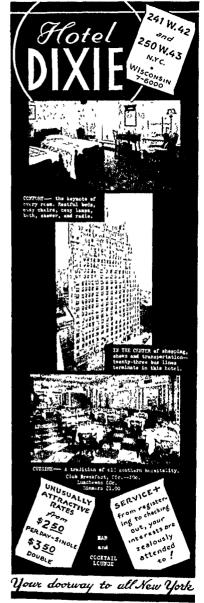
In Atlantic City, the Chalfonte Haddon IIall was host to the following doctors from New York—Dr and Mrs N. D. Wolf, Dr. A Platt, Dr. and Mrs S. P. Suffin, Dr. and Mrs. J. J. O'Doud, Dr and Mrs Chester A. Peake, Dr. and Mrs. H. Rasi, Dr and Mrs. F. J. Petrie, Dr and Mrs W B. Eddy, and Dr. G Jarvis Coffin.

IN BERMUDA, the following doctors registered at the St George Hotel—Dr. Walter H Clayford from New York, Dr. J. Henry Kramer from Chicago, and Dr. A. J. Leon from Conn.

AMONG ARRIVALS at the Ritz-Carlton in Atlantic City at the end of March were—Dr. and Mrs. Frederick C. Hunt and Dr. and Mrs. Leon Bowman of New York, and Dr. and Mrs. A. M. Stark of Long Island

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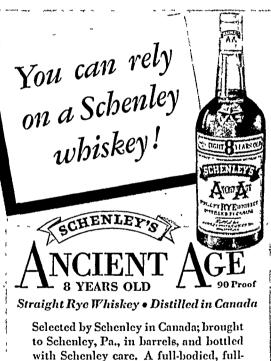
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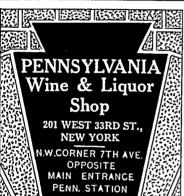
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Harold A Pech, MD, FACS

Illuminated Suction

Gervais Ward McAuliffe, MD

Complications of Gastric and Duodenal Ulcers

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Fever Therapy in Some Generalized Dermatoses

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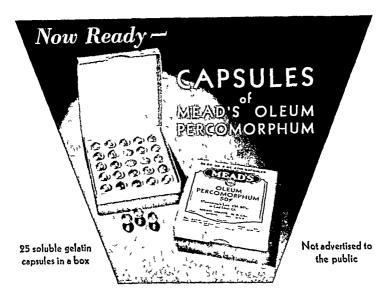
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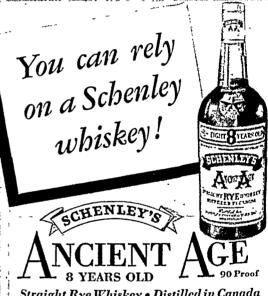
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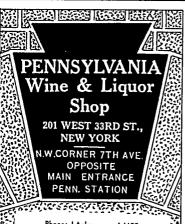
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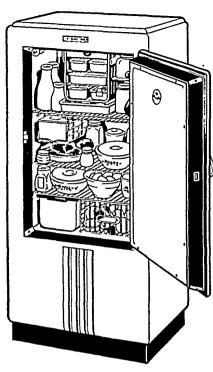
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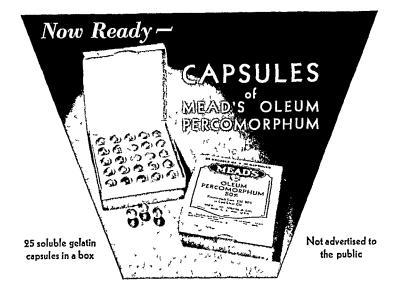
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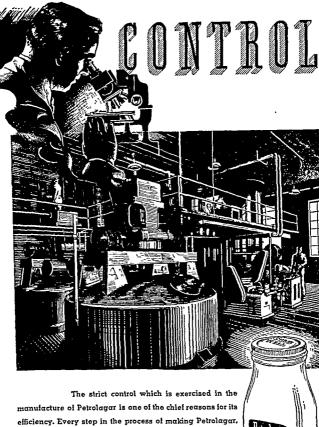
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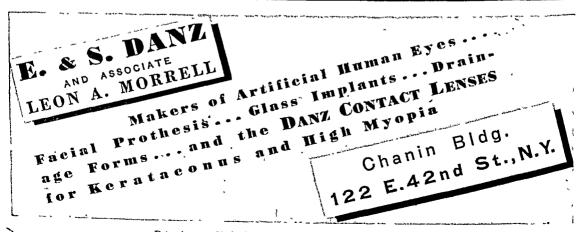
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CANNED FOODS AND THE PUBLIC HEALTH

IV. BOTULISM

 Several of our readers have inquired as to the possibility of botulism resulting from the consumption of commercially canned foods. The canning industry is proud of the part it has played in the eradication from its products of this deadly type of food intoxication. We are glad to devote this space to a discussion of this important tonic.

During recent years, the daily press periodically carries reports relating how one or more members of a family, or a group of persons, were stricken after a meal, usually with fatal results. Sometimes these accounts describe how an "anti-toxin" was rushed to the scene—an indication that botulism was involved. These press reports often include the statement that a "canned food" was incriminated as the cause of the illness.

We wish to emphasize that as far as the records go, these outbred's without exception are not attributed to foods commercially canned in this country. In practically every instance, it was found that the foods—usually of a non-acid or semi-acid nature—had been preserved at home by the use of inadequate heat sterilization processes (1). These press reports, by not stating correctly the type of food involved, have done much to cast unwarranted suspicion on commercially canned foods as possible causes of botulism.

Botulism, or acute toxemia due to clostridium botulinum, is by no means a maffiction. As early as 1802 — ninety-five years before van Ermengem discovered the true cause of the intoxication—warnings were issued against botulism. However, not until severe outhreaks occurred in this country some fifteen years ago, was it re alized that cognizance should be taken of

the fact that faods canned by the methods used in those days could become contaminated with the toxin of this organism. This fact having been realized, the canning industry took immediate steps to prevent such contamination of their products.

Research was inaugurated and has been continued to which the industry has contributed not only financially, but also by the studies of scientists associated directly with the canning industry (2). The end result of these researches was the development of scientific methods of determination of heat sterilization treatments, or heat processes as they are known to the industry, which would he adequate to insure the safety of canned foods from the standpoint of botulism (3).

The effectiveness of the measures generally adopted by the canning industry of the United States is evidenced by the fact that no case of botulism attributable to an American commercially canned food has occurred during the past ten years (la). Foods packed in commercial canneries are heat processed not only to insure protection from bacterial spoilage causing merely the loss of the food, but to render them safe from the standpoint of botulism, as well. In fact, a sterilizing process sufficient to insure the destruction of the most heat resistant strain of Cl. botulinum ever isolated is considered the minimum requirement of heat treatment of commercially canned foods. The National Canners Association has issued lists of scientifically determined processes for non-acid canned foods with which canners comply (4).

Such are the facts. The American canning industry offers its products to the consuming public for what they are; namely, wholesome and nutritious foods.

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1 a) 1935 Amer J Public Health, 25, 301 b) 1935 J Amer Diet, Assn. 11, 15 2 1936 J. Racteriology 31, No 1, P. 71 1925 Amer J. Public Health 13, 108 S 1923 Nati Res Council Bulletin, 7, No. 87 4, 1931 N C A Bulletin 26 L Revised

This is the twelfth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.



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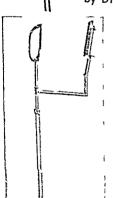
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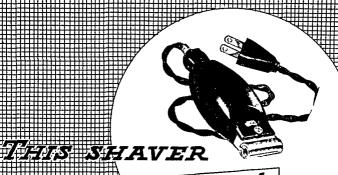
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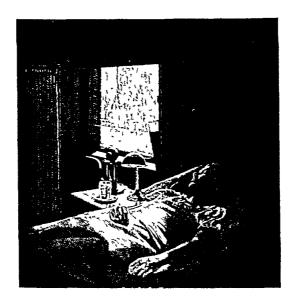
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New York STATE JOURNAL of Medicine

Official Organ of the Medical Society of the State of New York

Vol 36

MAY 1, 1936

No 9

INTRACRANIAL HEMORRHAGE

Its Anatomical Forms and Some of Their Clinical Features
Joseph H Globus, M.D., New Yorl City

Associate Neurologist and Neuropathologist The Mount Sinai Hospital Associate professor of Neuroanatomy New York University and Bellevile Hospital Medical College

The term intracranial hemorrhage is chosen to designate in this contribution a variety of conditions commonly spoken of as cerebral hemorrhage, but in which not only the brain substance but any of the several spaces within the cranial cavity are primary sites of hemorrhage. The designation intracranial hemorrhage, is considered preferable to the often misused term, cerebral hemorrhage, which for obvious reasons should be restricted in its application to bleeding primary in the brain substance.

Intracranial hemorrhage thus includes several forms of bleeding, such as (1) hemorrhage into the subdural space (the so called subdural hematoma), (2) hemorrhage into the subarachnoid space, (3) hemorrhage into the ventricular compartments, and (4) hemorrhage into the brain substance with or without extension into the intra- or extracerebral spaces

The anatomical alterations the clinical manifestations, and often the causative factors show a uniformity distinctive of each of the several forms of intracramial hemorrhage Moreover, the constellations of signs and symptoms assume the character of syndromes which make accurate recognition of the inture and site of the disease process not only a certainty but a duty which any physician in general practice can not and must not evade. This grave responsibility, however, is well compensated by the service that may thus be rendered, since accurate diagnosis

offers an excellent opportunity for successful treatment and obviates fatal therapeutic errors. To meet and discharge this responsibility, it is imperative to be fully informed as to the clinical manifestations and the underlying pathological changes which chiracterize any of the several forms of intracranial bleeding.

Subdural Hemorrhage (Subdural Hematoma)

By subdural bleeding is understood the accumulation of extravasated blood in the space between the arachnoid and dura. In the great majority of instances, particularly those which present diagnostic difficulties, the bleeding is slow and cumulative. It assumes the character of oozing, and this leads to the formation of an encapsulated collection of partly organized and partly liquid blood for which the term, chronic subdural hematoma is now commonly used.

In a large proportion of cases, particularly those which come into consideration here, the precipitating factor is violence to the skull, accidental or otherwise, which in many instances had occurred—and this is highly significant—at some distant time prior to the onset of cerebral symptoms. Of no lesser importance is the fact that frequently a trauma to the skull, which is most commonly found to be the cause of the bleeding, is so slight as to be completely disregarded at the time of its occurrence. This, however, does not exclude, as a precipitating cause

From the Neurological Service and the Direction of Laboratories, The Mount Sinas Hospital Read at the Annual Meeting of the Medical Society of the State of New York, Albany May 14 1935 of subdural hemorrhage, severe traumas such as are followed immediately by variable periods of unconsciousness. But whatever the immediate results of the blow to the skull, accurate knowledge of the occurrence of violence and the fact that minimal injuries are more frequently associated with subdural hematoma should be borne in mind in considering the diagnosis.

The slowness with which the blood

accumulates readily explains the almost constant occurrence of a relatively long asymptomatic period between the time of the injury and the appearance of alarming cerebral symptoms. This so-called latent period may be limited to a few hours or may, as it more frequently does, extend over a period of months. The semi-fluid character of the encapsulated sanguineous mass is often responsible for fluctuations in the clinical manifestations

TABLE I

ANATOMICAL FORMS OF INTRACRANIAL HEMORRHAGE AND SOME CLINICAL FEATURES

	Subdural	Subarachnoid	Intraventricular	Cerebral
Precipitating Factors	Violence to the skull.	Overexertion, sudden rise of blood pressure or spontaneous rupt- ure of a diseased ves- sel.	Hemorrhage in an adjacent structure (cerebral or subarachnoid).	
PATHOLOGY AND SOME MECHANICAL FACTORS	Injury to, or rupture of, a vein at the point of its entrance into a venous sinus. Blood enters the subdural space. May enter subarachnoid space in small amounts.	or in diseased vessel. Blood spreads through subarachnoid	breaks through strip of diseased tissue into ventricle and fills en- tire ventricular sys- tem, often reaching the subarachnoid space. Also blood in subarachnoid space	vessels in area of soft ening ruptures and fills potential space with blood; ofter breaks into ventri- cular system through narrow strip of de- generated brain tis- sue.
Onset	Abrupt after a latent period (from the time of injury to the skull to the appearance of cerebral signs and symptoms) of relative freedom from symp- toms.	a short prodromal period in which vio- lent headache, vomit- ing, dizziness, and	subarachnoid hem- orrhage.	short prodroma
EVOLUTION OF THE CLINICAL PICTURE	After a latent period, manifestations of increased intracranial tension: headache, dizziness, mental changes, slow pulse, and manifestations of focal brain disorder. Sudden development of stupor, often terminating in death.	headache, signs of meningeal irritation (neck rigidity, Kernig sign), with or without manifestations of fo-	destruction.	merging into coma with manifestations of focal brain de-
SIGNS AND SYMPTOMS AT HEIGHT OF CLINICAL COURSE	Constant: Headache, Mental dullness — stupor. Less constant: Diplopia, euphoria, anisocoria, hemiano- pia, convulsions (Jacksonian), papil- ledema, aphasia, bradycardia, ophthal- inoplegia.	tability, confusion, overactivity), rise in temperature, brady- cardia,	deepening of stupor, respiratory embar- rassment.	ria, deepening of
Laboratory Findings	Cerebrospinal fluid xanthochromic or bloody; occasionally clear.	Cerebrospinal fluid un- der increased pres- sure, bloody or xan- thochromic; albumin- uria.	Bloody cerebrospinal fluid.	Bloody (?) cerebrospinal fluid.
THERAPY	Surgery.	Drainage and sedatives.	Supportive.	Supportive.
Prognosis	If diagnosed and treated surgically, outlook promising, if no concurrent brain damage.	When diagnosed and treated by judicious	Fatal.	Fatal.

and is probably due to the admixture of cerebrospinal fluid which inhibits coagulation.

Among the symptoms to be considered in order of their importance and constancy are: headache, disturbances of consciousness, and other manifestations of increased intracranial tension. Mental changes, ocular and visual disturbances, convulsive seizures, and pupillary changes are among the less regularly encountered

findings (see table).

The recognition of this condition is not difficult if a reliable history of trauma

not difficult if a reliable history of trauma is obtained. However, the localization of the hematoma is much more difficult, particularly if it covers both hemispheres or when the brain, although compressed, does not give rise to symptoms of focal brain disruption. Very disquieting are also conditions in which, due to contracoup phenomena, signs of focal brain disturbance appear on the side ipsilateral with the hematoma. To meet these difficulties there are two very useful diagnostic procedures which may be carried out concomitantly: ventriculography or encephalography and trephining of skull. The former, by showing displacement of the ventricular system and by demonstrating alterations in all the aspects of the ipsilateral ventricle, will indicate the seat of the hematoma. The trephining procedures will substantiate the ventriculographic findings as to the location and will also yield the important information as to the hemorrhagic character of the lesion. Once the lesion is recognized and localized, surgery is the only therapeutic measure of avail.

Reports of cases

CASE 1. The following case exemplifies a typical instance of a clinically diagnosed subdural hematoma in which operative interference verified the diagnosis and resulted in complete recovery

History. The patient was a schoolboy, aged seventeen years. He was well until February 1932, when he met with what was considered to be a minor accident: he struck his head on a cross beam in a barn. He was dazed for a moment and experienced slight pain During the following three days he appeared to be well and then suddenly vomited. In the course of the next two months he remained apparently well, returned to school, and participated in games and other activities. From time to time.

however, he would experience headaches and vonit. The headache became more intense as time progressed and was accentuated by sudden movements of the head. Four days prior to admission to the hospital, the headache became unbearable.

Clinical findings and course. The patient was first seen by the author at the Southside Hospital (Bayshore, Long Island), where he was found distressed by headache and repeated vomiting. Examination revealed skull tenderness on percussion over the right parietal region, neck rigidity, bilateral papilledema, left facial asymmetry,



Fig. 1. Subdural hematoma, (case 2). The dura is reflected displaying the organized blood clot and the area of discoloration over the exposed subjacent part of the brain.

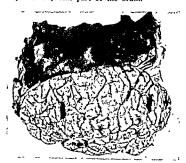


Fig. 2 Subdural hematoma, (case 3). The organized clot is adherent to the reflected dura.

depressed deep and superficial reflexes, and an inconstant Babinski sign on the left side. In view of the history of trauma, the latent interval and the above-quoted clinical manifestations, the author made the diagnosis of subdural hematoma and advised immediate transfer to The Mount Sinai Hospital for further observation and surgical intervention. A lumbar puncture there yielded xanthochromic cerebrospinal fluid. The character of the cerebrospinal fluid substantiated the diagnosis of subdural bleeding, and a craniotomy was performed by Dr. Ira Cohen. A trephine opening was made in the posterior parietal region on the right side. The dura was incised and a chronic subdural hematoma was found. It was first drained of its fluid blood. A flap was then turned down and the encapsulated hematoma, found spread over the entire hemisphere from the frontal to the occipital pole from the region of the sagittal sinuses down to the base of the brain, was removed in fragments as it was found adherent at some points to the underlying arachnoid membrane. Soon after the operation the patient developed more marked rigidity of the neck and continued to complain of headache. The convalescence was rather stormy but finally gradual improvement set in and all of the objective neurological findings have disappeared. A recent note from the patient stated that "he could not feel any better" and that at no time since he left the hospital was he ill.

Comment. This case illustrates how a minor injury to the head, almost negligible at the time of its occurrence, was productive of an extensive hematoma. It was apparently gradual in its formation, due to slow oozing of blood and, therefore, insidious in the production of the neurological manifestations. The diagnosis was not particularly difficult in view of the fact that the occurrence of head trauma was known and a lumbar puncture disclosed xanthochromic cerebrospinal fluid. The presence of the left Babinski sign and of the left facial weakness pointed to a right-sided lesion. This enabled the surgeon to proceed with security in selecting the right side for exploration.

Case 2. This is another case of subdural hematoma in which, however, the latent interval was a brief one.

History. A woman, forty-two years of age, tripped, fell, and struck her head lightly against some object. The accident was not witnessed by anyone and hence it is not known whether she lost consciousness at that time. She apparently continued with her house work, as her husband, on returning home that evening, found her apparently

well. The same evening, however, she suddenly passed through a convulsive seizure during which her eyes rolled upward, her mouth twitched over to the left, and there were jerky movements of the flexed left arm while the lower extremities were in rigid extension. The seizure was not accompanied by a loss of consciousness and lasted only a few seconds. Since then, similar seizures occurred hourly. The night before admission to the hospital, she was awakened from her sleep by a profuse nosebleed. She entered the hospital on the fourth day after the fall.

Clinical findings and course. Examination disclosed weakness of the left face and left hand, twitchings of the left face and arm, increased deep reflexes on the left side, and

astereognosis in the left hand.

In the evening of the first day in the hospital she had another severe nosebleed. At midnight there was an epileptiform attack, Jacksonian in character, and the pulse rate dropped to 48. She soon passed into stupor; her pulse suddenly became im-

perceptible, and she ceased.

Necropsy. There was no evidence of fracture of the skull. On reflecting the dura an organized blood clot was found over the right parietal region. It was easily separated from the dura and the underlying brain. Its removal left a depression in the hemisphere (Fig. 1). The depressed area in the brain was discolored, and there appeared to be some subarachnoid bleeding at that point.

CASE 3. In the following case the diagnosis was somewhat obscured by the uncertain history of injury, the recurrent headache of long standing and the negative cerebrospinal fluid finding on the first lum-

bar puncture.

History. A sixty-two year old man came to the hospital giving a history uneventful as to injury. He stated that over a period of twenty years he was subject to headaches which were relieved only by massive doses of bromoseltzer. Two weeks before admission he became dizzy and is said to have fallen. Soon after his headaches became more intense so that he could no longer go on with his work. He became somewhat sompolent and began to talk "neculiarly."

somnolent and began to talk "peculiarly."

Clinical findings and course. The left pupil was greater than the right. The deep reflexes were elicited on the right side only. The abdominal reflexes were absent. There was a Babinski sign on the left and an equivocal plantar response on the right side. The pulse ranged between sixty and seventy per minute. His temperature was normal. The cerebrospinal fluid was under normal pressure (110 mm. of water) and clear.

Soon after admission the patient passed into semi-stupor and a right hemiparesis became evident. The stupor gradually increased and another lumbar puncture was performed. It yielded xanthochromic cerebrospinal fluid with pressure at this time 210 mm. of water. The diagnosis of subdural hematoma was then made and the lesion was exposed at operation. Immediately following the operation the patient's stupor deepened. He died the following day.

Comment. The autopsy disclosed an extensive hematoma adherent to the dura (Fig. 2). The underlying cerebral hemisphere was found somewhat depressed. The reduction of the size of the left hemisphere is better seen in section (Fig. 3.). Here also the ipsilateral ventricle is shown to be smaller than its contralateral companion. Both lateral ventricles are somewhat displaced to the right side. This change in the size and position of the ventricles, when verified by encephalography, is often useful in determining the site of the hematoma, which may be clinically quite obscure.

Subarachnoid Hemorrhage (Spontaneous)

In this contribution the term, subarachnoid hemorrhage, is employed to designate massive bleeding into the space between the pia and arachnoid membranes (subarachnoid space) caused by spontaneous rupture of a diseased blood vessel traversing that space. We shall not include hemorrhages in the same location when they are the result of trauma and laceration of the brain tissue.

It is now agreed by most observers that this form of intracranial bleeding is caused by a defect in a vessel which pre-exists its rupture and the resultant extravasation. The pre-existing disease is commonly of the arteriosclerotic variety with or without aneurysmal formation. Syphilis and other inflammatory disease changes, as well as congenital weakness of vessels in the brain, are less common pathologic factors.

This condition has come to be recognized with excellent diagnostic precision. The sudden development of headache and vomiting, accompanied occasionally by an equally sudden loss of consciousness and followed by distressing signs of meningeal irritation, by a slight rise of temperature, and by slowing of the pulse, immediately arouses the suspicion of spontaneous subarachnoid bleeding. A lumbar puncture yielding bloody or

fluid verifies the diagnosis. It is readily differentiated from cerebral hemorrhage by the presence of meningeal signs and the frequent involvement of the cranial nerves (papilledema, ocular palsies, etc.).

The therapeutic steps are then definitely indicated. Drainage of cerebrospinal fluid carefully carried out will in the majority of cases relieve headache. Sedatives should be generously administered to keep the patient at rest and in comfort.

Reports of cases

CASE 4. History. R.H., a woman, aged fity-four years, was known to have had hypertension for a period of twelve years, and to have had a severe epistaxis on one occasion. Five days prior to her admission to The Mount Sinai Hospital, she was found unconscious on the floor. Severe headache, general weakness, and repeated vomiting marked the following twenty-four hours Her blood pressure at that time was 210 systolic and 140 diastolic.

Clinical findings and course. The neurologic status at the hospital showed rigidity of the neck, blurred optic disks, retinal hemorrhages in the right fundus, slight right facial weakness, depressed deep reflexes, absent right abdominal reflexes, and a right equivocal plantar response.

A lumbar puncture yielded uniformly bloody cerebrospinal fluid under increased pressure. The blood Wassermann test was negative. The urine contained a trace of albumin. The temperature on the day of admission varied between 99 and 100° F.; on the second day it rose to 103° F. The patient's decline was rapid and death ensued on the fifth day in the hospital.

Necropsy. The subarachnoid space contained a large quantity of blood. The right middle cerebral artery about 2.5 cm. from its origin, revealed an aneurysm (Fig. 4). It measured about one cm. in diameter. The vessels at the base of the brain showed a moderate degree of atherosclerosis.

On microscopic examination the wall of the middle cerebral artery close to the aneurysm showed pronounced degenerative changes in all of its coats (Fig. 5). The intima was thickened and showed alternately areas of proliferative and degenerative changes. There were splitting of the elastic and thinning and degeneration of the media.

Comment. This case exemplifies a typical instance of spontaneous subarachnoid hemorrhage precipitated by rupture of a pre-existing aneurysm. The underlying cause of the formation and ultimate rupture of the subary in its unquestionably the degeneral

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tive changes in cerebral vessels, a local manifestation of the general vascular disease. The direct cause of the rupture of the vessel is undetermined, but is of little significance as a spontaneous break in a degenerated, unprotected vessel (the vessel is free in the subarachnoid space) may

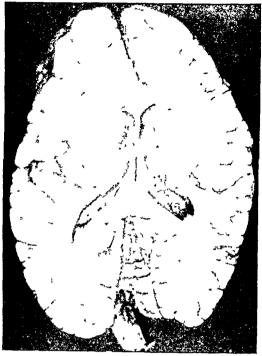


Fig. 3. Brain in section, showing the asymmetry and dislodgement of ventricles by a left-sided subdural hematoma, (case 3)

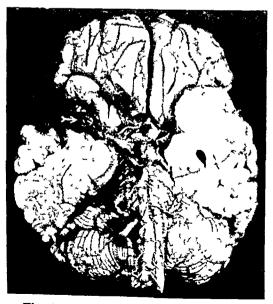


Fig. 4 Subarachnoid hemorrhage, (case 4) Arrow points to the ruptured aneurysm

occur with or without demonstrable provocation.

CASE 5. History. SK, a woman, aged forty-three years, was for some time complaining of increasing dyspnea, palpitation on exertion and edema of the legs. Six days before admission to The Mount Sinai Hospital, she suddenly became dizzy. She recovered sufficiently to walk up a flight of stairs unaided, but soon after complained of severe headache in the occipital region, vomited several times, and became alternately drowsy and restless.

Clinical findings and course. There were moderate rigidity of the neck and a bilateral Kernig sign. The pupils were small and unequal; the right was larger. The fundi showed moderate blurring of the disks and several retinal hemorrhages. The blood pressure was 170 systolic and 105 diastolic.

The diagnosis of subarachnoid hemorphage was made and confirmed by a lumbar puncture which showed uniformly bloody cerebrospinal fluid. The white blood cell count was 18,000; polymorphonuclear leukocytes, eighty-eight per cent. The blood Wassermann test was negative.

The temperature ranged between 100 and 101° F. For the first three weeks in the hospital the patient seemed to improve. The blood pressure came down to 120 systolic and 80 diastolic, but then the patient suddenly collapsed, and within a few minutes passed into deep coma, the breathing becoming shallow and the pulse rate dropping to sixty. The blood pressure at this time rose to 200 systolic and 120 diastolic. A lumbar puncture yielded clear cerebrospinal fluid under increased pressure. The patient died within a few hours.

Necropsy. When the dura was reflected, an extensive blood clot was found over the

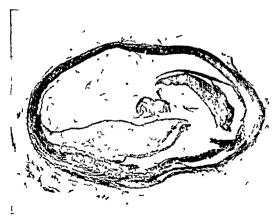


Fig. 5 Photomicrograph, showing the advanced disorganization of the wall of the vessel close to the point of rupture, (case 4).

left frontoparietal region. As it was washed away, an extensive subarachnoid hemorrhage was noted, covering approximately the same cerebral territory (Fig. 6). Running transversely across the upper margin of the Sylvian fissure there was a break in the thickened arachnoid, measuring about three cm., and marking the communication between the subarachnoid and subdural collections of blood. This large circumscribed subarachnoid hemorrhage could be traced to the depth of the left lateral fissure where it occupied the entire insular region and caused marked displacement of the cortex (Fig. 7).

Vessels in the region of the henorrhage, when examined microscopically, showed advanced degenerative changes. One vessel, with coats undergoing massive degeneration, showed at one point a rent in its wall which probably was responsible, in part at least,

for the hemorrhage (Fig 8)

Comment. Of particular significance in this case is the restriction of the subarachnoid bleeding to a circumscribed area in the subarachnoid space. Not without interest is the occurrence of a break in the arachnoid membrane leading to a concurrent subdural hemorrhage. The cause is, of course, evident from the condition of the vessels revealed at the site of the subarachnoid bleeding.

CASE 6. History. A. D., a woman, aged thirty-six years, seven years before admission to the hospital, while under the stress of a violent emotional outburst, had developed intense pain in the left frontal region with restlessness and insomnia Two months later she suddenly experienced



Fig 6. Subarachnoid hemorrhage, (case 5). The extravasation is limited to a small area of the pia-arachnoid space.

transient double vision and pain over the left eye. Two weeks prior to admission, the pain in the left frontal region suddenly returned, and she became stiff "all over" and exceedingly weak. The headache now became generalized and the pain spread down the spine and along the left forearm. This was accompanied by elevation of temperature and an occasional chilly sensation.

Clinical findings and coinse. The left pupil was dilated and fixed to light. There were marked rigidity of the neck, a bilateral Kering sign depressed deep reflexes, and

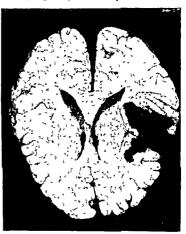


Fig. 7. Subarachnoid hemorrhage, (case 5). Section of the brain showing the limitation of the hemorrhage to the lateral and circular fissures and the compression of the island of



Fig. 8 Disrupted vessel wall of an artery found in the hemorrhagic zone (case 5).

slight weakness and tremor of the left hand. A lumbar puncture yielded uniformly bloody cerebrospinal fluid which showed xanthochromia on standing. The blood pressure was 142 systolic and 90 diastolic. The Wassermann tests of the blood and cerebrospinal fluid were negative. The urine contained only a trace of albumin. The blood count showed white blood cells, 11,400; polymorphonuclear leukocytes, sixty-six per cent.

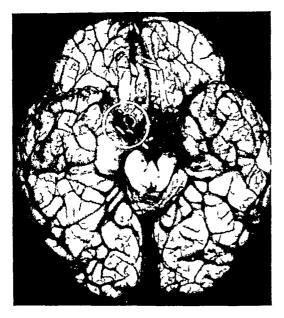


Fig. 9. Ruptured aneurysm (in the white circle) (case 6).

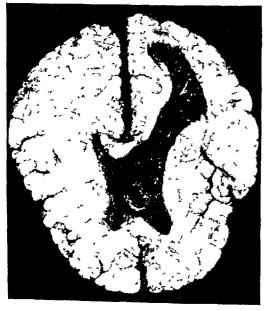


Fig 10 Intraventricular hemorrhage (case 6).

The patient did not convalesce satisfactorily, and on the twenty-third day in the hospital she suddenly passed into stupor. The pulse became unusually slow and a lumbar puncture at this time revealed bloody fluid. She died several hours later.

Necropsy. The brain was voluminous; the gyri were flattened. The meninges were dull and showed patchy discoloration, particularly of the left frontoparietal region, where there was a large amount of blood in the subarachnoid space. In an attempt to dissect structures in the interpeduncular space, old adhesions were found, especially on the left side, making it difficult to separate the left branches of the circle of Willis. The left posterior communicating artery was surrounded by dense granulation tissue and was adherent to the adjacent inferior surface of the left temporal lobe. In the course of dissection a small sac broke off from the somewhat thickened posterior artery (Fig. 9). The inferior surface of the left temporal lobe showed marked softening and through a small opening, most likely artificially produced, blood escaped on the slightest pressure on that lobe. ventricles were greatly distended with blood (Fig. 10). A section of the vessel close to the aneurysm displayed advanced disorganization of its structure (Fig. 11).

Comment. Aneurysmal formations cerebral blood vessels are not uncommon in younger individuals. The greater activity of such patients predisposes them to more frequent rupture of such aneurysms. In this case the aneurysm whose rupture caused the fatal issue probably existed for a period of years, as the history of headache and diplopia would indicate. The adhesion found in the regions acted as a protective coat for the degenerated wall of the aneurysm and held off the terminal hemorrhage. The blood in the ventricles was very likely due to retrograde movement of the blood through the foramen of Magendie into the ventricular system.

CASE 7. History. C. G., a colored man, aged twenty-seven years, was subject during the past year to frequent and severe headache. He had had a chancre five years previously. Three weeks prior to admission to the hospital, he was suddenly seized with a convulsive attack, lasting fifteen minutes, accompanied by loss of consciousness. He was confined to bed for two weeks and seemed to improve but complained of diplopia. At the Outpatient department his blood Wassermann reaction was found positive. He received a course of antisyphilitic therapy and improved sufficiently to return to work. At the end of one week, however.

severe headache returned, and he was ad-

mitted to the hospital.

Clinical findings and course. The patient was drowsy. There was rigidity of the neck and a bilateral Kernig sign. The pupils were unequal; the left was larger; both were fixed to light. There was limitation of the eve movements in all directions, with skew deviation and ptosis of the left eyelid. The tongue deviated to the right, and there was a right central facial paresis. The deep and superficial reflexes were depressed. The disks were blurred, and a linear retinal hemorrhage was noted. A lumbar puncture revealed bloody cerebrospinal fluid under increased pressure. The Wassermann reaction of the blood was reported four plus. The Wassermann reaction of the cerebrospinal fluid was negative (in spite of its being bloody). The temperature was 100° F. and the pulse rate was sixty-six.

The signs of meningeal irritation and the presence of blood in the cerebrospinal fluid pointed to the diagnosis of subarachnoid hemorrhage due to rupture of an ancurysm Repeated, carefully carried out fumbar punctures and the administration of antisyphilitic therapy led to a gradual improvement. The patient became more aleit; the headache became less severe, although the objective symptoms did not change.

On the seventh day in the hospital while at stool, the patient suddenly complained of sudden pain in the back of the neck, and soon became drowsy, the pulse rate dropping to fifty-two. He remained in this condition for several days. A lumbar puncture again showed bloody fluid, under increased pressure (530 mm.). The antisyphilitic treatment was resumed, and the patient began to improve. The meningeal signs abated The ocular movements gamed in range, but three weeks later, while receiving an enema, the patient suddenly sank into deep coma, and died six hours later.

Necropsy. A large amount of blood was found in the subarachnoid space, particularly at the base of the brain (Fig. 12). There was moderate distention of the ventricles with a small amount of coagulated blood in the third ventricle, in the right posterior horn of the lateral ventricle, and in the aqueduct of Sylvius.

The meninges, meningeal blood vessels, ependymal lining of the ventricle and the basilar artery showed the anatomic alterations of meningovascular syphilis. The basilar artery presented features typical of the Huebner endarteritis obliterans, and on tracing it downward to the vertebral arteries, the ruptured ancurysm (Fig. 13) was disclosed.

Comment. Here we have an aneurysm,

which was unquestionably due to syphilis, and the rupture of which caused the fatal hemorrhage. Syphilis, for some unknown reason, is not a frequent factor in the production of subarachnoid bleeding Other inflammatory lesions affecting blood vessels are similarly capable of the production of spontaneous subarachnoid bleeding. This is particularly true of mycotic aneurysms in rheumatic disease and of periarteritis nodosa.

Intraventricular hemorrhage

The importance of intraventricular hemorrhage has been over-estimated in textbook discussions. It is seldom, if ever, primary. It is almost always a terminal event in either cerebral or subarachnoid bleedings and hardly deserves mention from the clinical point of view. Most

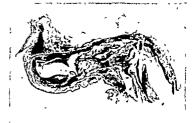


Fig. 11. Disorganization of wall in part of the vessel adjacent to the aneurysm (case 6).



Fig 12. Subarachnoid hemorrhage (case 7).

commonly it occurs as an extension of a hemorrhage in structures adjacent to any of the ventricular compartments whence the blood spreads rapidly and fills all of the ventricular subdivisions. This results in an ever-deepening loss of the patient's consciousness. If there was partial loss of power earlier in the clinical course, there will now appear paralysis in all extremities with unilateral or generalized convulsions. The site of the primary cerebral hemorrhage may still be recognized by the presence of rigidity in the extremities on the contralateral side. Bradycardia, subnormal temperature, Cheyne-Stoke's respiration, a rapid and small pulse, contracted pupils which later become dilated and fixed are among the signs pointing to intraventricular hemorrhage. A lumbar puncture, of course, would have yielded bloody cerebrospinal fluid.

Report of a case

CASE 8. *History*. N. V., a fifty-seven year old male, suddenly lost consciousness while buying cigars and was brought to the hospi-

tal in deep coma.

Clinical findings and course. The patient was unconscious, cyanotic, and had stertorous breathing. There was no evidence of trauma. There were many retinal hemorrhages along the course of the artery. The heart was enlarged to the left, There was marked peripheral vascular sclerosis. The right pupil was pinpoint, the left moderately dilated; neither responded to light. The deep reflexes were hyperactive, particularly on the left side. The left abdominal reflexes were absent. There were a Babinski sign and ankle clonus on the left side. The blood

pressure was 300 systolic and 140 diastolic.

The deep reflexes soon disappeared and bilateral Babinski signs appeared. Cheyne-Stoke's breathing set in. The urine showed albumin ++. The patient ceased 1½ hours after admission.

Comment. Here the diagnosis of cerebral hemorrhage was made and verified by autopsy (Fig. 14; see also Fig. 10).

Cerebral hemorrhage

Clinically this condition is not unlike intraventricular hemorrhage. It also is but a final event in a long chain of disease changes in the brain. Nevertheless it deserves discussion, for its causation needs elucidation, and it should be differentiated from the other less malignant forms of bleeding.

The term should be applied only to conditions in which the hemorrhage occurs in the brain as its primary seat. It should not be used, as is often erroneously done, to designate vascular insults in the brain in which the lesion is in the nature of softening. It is this misuse of the term that is responsible for the belief that cerebral hemorrhage is often followed by recovery. It is most likely that the instances of recovered, so-called cerebral hemorrhage were cases of cerebral thrombosis. There a transient vascular stasis, edema or a small area of encephalomalacia is responsible for the clinical manifestations, which in the early stage of the vascular insult are almost indistinguishable from those in cerebral hemorrhage.

It should be emphasized that cerebral

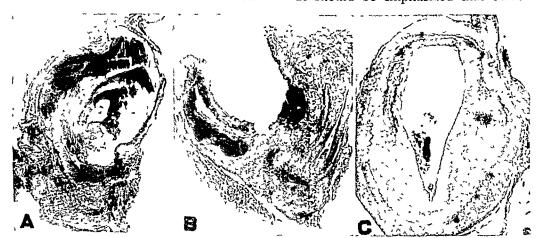


Fig. 13. (a) Section showing unruptured degenerated wall of the aneurysm, (b) section showing ruptured part of the aneurysm, (c) section showing luetic character of the lesion in an adjacent vessel. (Case 7)

hemorrhage is a terminal event, that it occurs only when certain pre-existing pathological conditions have paved the way for the rupture of a vessel and for the free flow of blood from such a vessel into a potential cavity. The pre-existing conditions in question include: (a) an area of softening caused by partial or complete closure of blood vessels supplying the involved territory; (b) a diseased blood vessel, exposed or naked because of the dissolution of neighboring tissue by an antecedent vascular inadequacy; (c) rise in blood pressure to affect rupture of the diseased blood vessel or a sudden break in vessels without obvious external cause.

The clinical manifestations of cerebral hemorthage are not clearly delineated it is understood that cerebral hemorrhage is but a final event which follows in the from those of cerebral softening. But once wake of softening, then the problem finds a simple solution. It is realized then that the destructive lesion in the brain due to softening is responsible for a group of signs and symptoms which, when extravasation takes place into that zone, are first intensified and then terminate in a fatal issue as the blood spreads beyond the limits of the area of softening into the ventricular system. Lumbar puncture, were it practiced more frequently in such circumstances, would disclose the blood in the cerebrospinal fluid as an aid in the diagnosis Without such a finding the distinction between softening and hemorrhage can be made only on somewhat uncertain observations such as: (1) the history of previous apoplectic attack; (2) the deep reddish hue of the patient's face; (3) the very pronounced cardiovascular disease; (4) the advanced age of the patient; (5) the deepening coma; (6) the respiratory embarrassment; and (7) the fixation of the rather wide pupils, all of speak in favor of cerebral which hemorrhage.

Reports of cases

CASE 9. History. S. N., a woman, aged forty-five years, was known to have had high blood pressure for a period of seven years preceding the illness. Six weeks prior to admission to the hospital, while at work, she suddenly became dizzy, lost consciousness, and fell to the floor. She vomited repeatedly and on examination by a physician

showed a complete left-sided paralysis. For the next four weeks, she showed slight improvement, but at the end of that time she suddenly became delirious and passed into stupor.

Clinical findings and course. The pupils were equal and reacted well to light and accommodation. The eyes were in conjugate deviation to the right. There was a left hemiplegia. The cerebrospinal fluid was clear, 'colorless, under increased pressure and contained thirty-nine cells per cubic millimeter. The patient declined gradually and died eighteen days after admission to the hospital.

Necropsy. The right cerebral hemisphere



Fig. 14. Intraventricular hemorrhage, secondary to cerebral hemorrhage (case 8),

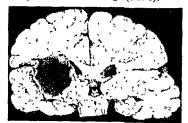


Fig 15 Cerebral hemorrhage (case 9).



Fig. 16. Cavity displaying a naked blood vessel (case 9).

showed in the depth of the Sylvian fissure a large fluctuating mass covered by a thin layer of cerebral cortex. A large cavity filled with blood was found, replacing almost all of the island of Reil and a major part of the adjacent basal ganglia (Fig. 15). On removal of the coagulated blood, the wall of the cavity was found to consist of a wide zone of necrotic tissue, and a medium sized, naked blood vessel was noted crossing the cavity (Fig. 16).

The microscopic as well as the gross anatomical findings in this case fully support the view that the apparently spontaneous massive cerebral hemorrhage is but a terminal phase in a sequence of events which have their beginning in a more or less generalized disease of cerebral vessels, resulting in the closure of one or more of such vessels in a limited area of the brain. This created an ischemic zone and a corresponding area of softening cephalomalacia). The softened area may be regarded as a potential cavity, within limits a poorly protected diseased blood vessel may, with or without demonstrable provocation, rupture and fill without hindrance the cavity with blood. This concept is supported by the presence of generalized vascular disease in the affected individual, by the presence of glial proliferation in such brains, indicating the chronicity of the process, by the existence of an organized wall about the so-called hemorrhagic cysts, by the presence of exposed vessels in the hemorrhagic areas, and by some clinical features as depicted in the

CASE 10. History. R.H., a housewife, aged forty-eight years, was first admitted to the hospital on January 10, 1928. She complained of headache and lethargy of two months duration; the lethargy was constant and if undisturbed, she would readily fall asleep at any opportunity. One month later, occasional vomiting appeared and she continually experienced a sensation of "numbness and coldness" all over the body.

Clinical findings and course. Examination on admission showed marked dulling of intellect, slightly unequal pupils, bilateral external rectus paresis, bilateral Babinski sign, and impairment of pain and temperature sensations on the entire left side of the body. There was no loss of power. The blood and spinal fluid Wassermann tests were reported as four plus. The colloidal gold curve was paretic in type. Cerebrospinal syphilis involving mainly the chiasmatic region was diagnosed. She was referred to the outpatient department for antiluctic therapy.

On February 23 she suddenly collapsed

at her home, fell to the floor, and became stuporous. She was brought to the hospital in deep coma. The deep reflexes were hyperactive; abdominal reflexes were absent. There was a bilateral Hoffman and Babinski sign. The pupils were somewhat contracted and unequal. The blood pressure was 200 systolic and 100 diastolic.

A lumbar tap showed almost pure blood. On these findings a diagnosis of intraventricular hemorrhage was made. The patient soon developed Cheyne-Stoke's breathing and died about twelve hours after

ollapse.

Necropsy. The brain was small and showed evidence of increased intracranial tension. The pia-arachnoid, particularly at the base of the brain, was distended with blood. On sectioning the brain, the ventricles were seen to be filled with blood. The third ventricle was distended with blood which escaped into it from an area of softening in the left thalamus. The lesion also extended into the posterior portion of the corpus striatum.

Microscopic studies revealed intense arteriosclerotic changes in the cortical vessels with very marked inflammatory reaction consisting of perivascular accumulation of polynuclear, mononuclear, and gitter cells. Extensive areas of degeneration and hemorrhage were seen everywhere. There were likewise areas of marked

gliosis.

Comment. In this case it may be assumed that in the first attack, the lesion was mainly in the nature of cerebral softening. It paved the way for the second vascular insult which took the form of a hemorrhage into the softened area.

Summary

- 1. There is need of a more precise identification of the several forms of intracranial hemorrhage as each one demands individual evaluation and treatment. The accompanying table indicates some of the more obvious points in differential diagnosis.
- 2. Subdural hematoma is not an uncommon condition occurring in the wake of negligible trauma. It demands surgical treatment which can be successfully employed only when the character and seat of the lesion are established.
- 3. Subarachnoid hemorrhage is another form of intracranial bleeding which can be readily recognized. It should be suspected in every case of abrupt development of headache, vomiting, loss of consciousness, and signs of meningeal

irritation, particularly in patients with known hypertension. A lumber puncture will substantiate the diagnosis by revealing frankly bloody or xanthochromic cerebrospinal fluid. When identified, it often yields to the only available therapeutic measure judicious removal of small amounts of singuineous cerebrospinal fluid in the early stage and the misurance of a quiescent state for the patient.

4 Intraventricular hemorrhage is but a final event in a progressive vascular disease of the brain and is of interest only from the prognostic point of view

5 Cerebral hemorrhage is also a terminal event in an advancing vascular discase of the brain. It should not be confused with other forms of intracranial

bleeding It should not be dingnosed when the cerebral lesson is in the nature of softening. The latter, however, is a condition which predisposes to the cerebral hemorrhage. A naked blood vessel traversing such an area of softening and its rupture due to inherent weakness or as the result of an added load caused by a sudden increase in blood pressure are two important factors which may convert the less dangerous area of softening into a fatal cerebral hemorrhage.

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Discussion

DR LASALLE ARCHAMBAULT, Albany—I well remember that several years ago, at a meeting of the American Neurological Association, Dr Globus together with Dr Strauss called attention to the fact that intracerbral hemorrhage was a terminal event in a long series of autecedent degen erative changes in the bruin substance resulting from disturbances of vascular irrigation, and that disintegration of the paren chymn actual necrosis or softening of the perivascular area, took place causing an already more or less oval shaped cavity to prepare itself for the reception of the eventual extravasation of blood

I believe that this view is now fairly unanimously accepted. However, it hardly seems to me to account for intracerebral hemorrhage occurring in children in connection with whooping cough, in connection with intracerebral hemorrhage in children and young adults during the course of or after pneumonia scarlet fever, and even other forms of septicemia. I presume that

the explanation in the latter group of cases is to be found in an acute degeneration of the vascular wall produced by bacterial toxins

As regards the treatment of spontaneous subarachnoid hemorrhage, I believe that in every instance a diagnostic lumbar punc ture should be done, but I am formally opposed to the repeated daily puncture ad vocated by some as a form of spinal drain age destined to remove the effused blood which has been believed to exert actual toxic effects on the brain substance much as in many cases the condition results from a leak in an aneurysmal sac, I have had more than once the impression that I was tapping an aneurysm and in some cases when I stopped my meddlesome behavior my patients went on to recovery In other words, Mother Nature takes excellent care of some sick people and perhaps the most judicious thing to do is to let the patient strictly alone

RISING TIDE OF LEPROSY

That the number of lepers in the British Empire has increased by 700,000 in the last twelve years wis revealed the other evening in London before the British Empire Leprosy Relief Association by its committee's chairman, Sir Edward Gait

Sir Edward said investigation had shown

Sir Edward said investigation had shown that leprosy was far more widespread than formerly thought, and their 1924 estimate of 1,300 000 lepers in the British Empire had been increased to a minimum of 2,000 - 000 today

Active branches of the Relief Association have been formed in all the Indian provinces and many of the States, hundreds of clinics opened, many hundreds of doctors trained, and hundreds of thousands of lepers treated By active propaganda the people of India have been roused to help in stamping out leprosy

DIABETES IN GENERAL PRACTICE

JAMES RALPH SCOTT, M.D., F.A.C.P., New York City

Diabetes mellitus is too frequently regarded as a disease to be treated by specialists. Consequently there has been a tendency in the past on the part of the general practitioner either to manage the diabetic patient in an inadequate rule of thumb fashion or to refer each case as it arises to a specialist. Either course is unwise, and the author is happy to say that the younger men are manifesting a growing desire to place the routine care of the diabetic where it belongs; i. e., in the hands of the family physician.

It has been estimated that ninety per cent of all illness can be successfully treated by the family physician. Diabetes should be included in this category. Many medical men, however, do not know how to manage the diabetic patient scientifically and at the same time practically and safely. They need more accurate information, not only as to recent advances in our knowledge of the disease, but also as to its application to the patient in actual practice.

Moreover, this need is not confined to the family physician, for the surgeon, the pediatrist, the gastroenterologist, and other specialists are from time to time confronted with the problem of what to do with the diabetic patient, and are often at a loss as to the proper management of the patient while under their care.

There is a need, therefore, among the profession as a whole for a clear, scientific, and practical discussion of the actual management of the diabetic patient. It is in an attempt to meet this need that the present paper has been prepared.

Cause

As an introduction a few remarks regarding our knowledge of the cause of diabetes may be appropriate. The cause of diabetes is still unknown. In 1889 diabetes was proved to be associated with pancreatic function, and in 1900 it was shown to follow degeneration of the islets of Langerhans. It was assumed on the basis of these studies, therefore, that the

disease was caused by a deficiency in the production of insulin by diseased islet tissue.

This simple hypothesis, however, apparently fails to explain all the facts. More and more, we are coming gradually to believe that hyperglycemia is due not so much to lack of insulin as to its ineffectiveness. Antagonistic forces come into play, whether nervous, toxic or glandular, which inhibit the formation of insulin by normal islets of Langerhans or neutralize it after it is formed.

To explain why this change in opinion is taking place, it is only necessary to review some of the facts that have come to light in the study of diabetes during the past ten years.

We know that almost total destruction of the islets of Langerhans is necessary to produce coma by this means, for it has been shown that nine-tenths of the pancreas can be removed without producing hyperglycemia. Yet many persons dying in diabetic coma show little or no destruction of the islets of Langerhans. Nervous or emotional excitement inhibits the action of insulin. The toxemia of fever neutralizes the effect of insulin making it necessary to give much larger amounts to maintain a normal blood sugar than is necessary in the absertever.

Endocrine disturbances particul preciction fluence the potency or production insulin. In the presence of mest chyper roidism, diabetic patients sho ar girls development insulin resistance. Diabetic able rance at a diminishing glucose toled oints onset of menstruation.

onset of menstruation.

Pituitary hyperfunction is ac an nd co by an elevated blood sugar. A wirted to versely, total diabetes can be averaged depancreatized dogs by the removal study of the hypophysis. Finally adrenalin, the study of the hypophysis. Finally adrenalin, the study of the hypophysis. Finally adrenalin, the insulin that it is employed in the transfer ment of insulin shock. Obviously the endocrine system is involved in diabetes, and further research in this field may

reveal its cause and yield new weapons for its conquest

Diagnosis

The diagnosis of diabetes mellitus is easy, and depends upon the performance of two tests, viz, a determination of the amount of glucose in the blood and in the urine. A listory of the symptoms of diabetes should lead one to perform these tests.

The typical symptoms are (1) Polyphigia, (2) polydipsia, (3) polyuria, (4) loss of weight, (5) boils and carbuncles, (6) dermatitis and pruritus, (7) cataract and failing vision, (8) gangrene,

(9) coma

Any one of these symptoms can accompany other conditions, and is, therefore, only suggestive, but the conclusive evidence of the presence of diabetes is to be found in testing the blood and urine for sugar The urmalysis alone is usually sufficient, but not always. The presence of glucose in the urine does not always indicate diabetes mellitus, for in renal glycosuria glucose appears in the urine, although the blood sugar findings are normal There are also conditions in which the reducing substance in the urine may not be glucose at all but pentose or levulose or lactose Although these conditions will bear watching, they are relatively harmless

On the other hand, a negative test for glucose in the urine does not always exclude diabetes melhtus, for in the presence of kidney damage, blood sugar values are frequently found as high as 200 to 300 mg, with no glucose appearing in the urine. These persons have diabetes, but it could not be diagnosed on a urinalysis alone. When sugar is found in the urine, therefore, a fasting blood sugar determination should be done to clinich the diagnosis. If sugar is found in the urine and the fasting blood sugar is over 125 mg, per 100 cc, a diagnosis of

diabetes mellitus is justified

Both of these tests are within the reach of the modern general practitioner A urinalysis can be done in the office in five minutes. For the blood sugar determination five cc of blood is collected from a vein and placed in a bottle contaming a few grains of sodium citrate powder. It is then sent to the nearest

biological laboratory where a report can be obtained in one hour. If the specimen is to be sent a distance by mail, two drops of forty per cent formaldehyde should be added to prevent fermentation and consequent destruction of the sugar. The author wishes to emphasize that the diagnosis of diabetes mellitus depends upon these two simple tests, and that they are both capable of being performed by the general practitioner.

Treatment

When confronted with the treatment of diabetes, the average general practitioner, because of the multiplicity of calones, carbohydrates, gram scales, and food charts becomes panic stricken and helpless This should not be so, for when properly conducted, the routine of the treatment is the task of the patient, and the physician acts only in the capacity of a consultant It is properly so, for until the patient or some member of his family becomes interested enough to be responsible for the routine management of his case, he cannot be successfully treated by any physician The physician, to be sure, must be familiar with the principles and criteria of successful treatment, but these can be acquired in so short a time that the author is in hopes that they may be communicated in the present article

It should be understood from the Just that none but the nuldest cases can be successfully treated except by calculation of the diet by some means or other This is the foundation stone of successful treatment Portunately it is not necessary or even desirable for the physician to take over this task. The author has not for years, personally, calculated a diet, but misists that his pitients do so daily Among them are farmers, teachers, lawyers, housewives, and even children who calculate their diet, test their unine, and give themselves insulin as well as it can be done in a hospital

But how do they learn in the first place? A competent dietitian can teach anyone in an hour how to go about it After that the patient can learn only by doing it himself. The author has even engaged one diabetic patient to teach another, and hardly any community is or remote that such a person cannot be reached. To be sure, there are in every

large city dietitians, office nurses or even diabetic patients who would be willing for a moderate fee to do this work for the physicians of the community.

The criteria of successful treatment are simple: (1) A sugar-free urine; (2) a normal blood sugar; (3) a weight within ten per cent below the average for age, height, and sex.

By maintaining, with the aid of insulin, a sugar-free urine and a normal blood sugar, it will be found that the glucose tolerance of the patient will improve and the diet can be increased or the insulin decreased. The modern low fat diets will confine the cholesterol, within normal limits and avert the early onset of arteriosclerosis which was formerly a constant finding in diabetics. Since obesity is such a frequent precursor to diabetes and overnourishment is positively dangerous, the reason for the weight limitation is obvious.

Education of the Patient

The first step then in treatment is the education of the patient in the management of his own case. He is not safe until this has been accomplished. He or some member of his family must be taught to do three things: (1) Test his urine for sugar; (2) calculate his diet; (3) give himself insulin.

The equipment required for this is simple. A bottle of Benedict's qualitative solution, a test tube, a 500-gram food scale and a table of food values. The urine is tested four times daily—before breakfast and one hour after each meal. Insulin is given according to these tests.

To exemplify the outline of a patient's routine, the following paragraphs are quoted from a previous article by the author:

- 1. He tests his urine for sugar before breakfast and one hour after each meal, and records the results in a notebook kept for the purpose. The results of the test are recorded as blue, green, yellow, or orange. This gives a roughly quantitative record of the amount of sugar in the urine, and is a reliable index of the amount of insulin required, as well as at what time of day it is most needed.
- 2. He weighs and calculates his diet until he has become familiar with the prescribed amounts of each article of food. He is then

allowed to dine at a restaurant where he has to estimate the quantity of food, after which he does a urine test to see how close he came to his allowance. This can become a fascinating game.

3. He gives himself insulin as prescribed by his physician. After following the effects of insulin on his tests, he is allowed to increase or decrease the insulin one or two units a dose as indicated by his tests.

4. He visits the office anywhere from twice a week to once a month depending upon the severity of his case. All patients should be seen at least once a month. On each visit the patient should bring a specimen of urine—usually the first in the morning-to be tested for sugar and acctone. He should bring the notebook in which is recorded each day's diet, the results of the four daily urine tests, and the insulin dosage. The patient's weight is taken and recorded on the chart to compare with his theoretical normal, and instructions given as to diet and insulin. A blood-sugar determination should be done every week until the patient is stabilized as to diet, weight, and insulin; then once a month, A well-trained patient not on insulin need not submit to a blood test oftener than once in two or three months.

Diet

The prescription of the diet for a diabetic is really quite simple. A fastidious calculation of the theoretical calory needs of the patient is unnecessary. Only the protein requirement must be known. The protein requirement of adults is one gram per kilogram of ideal body weight per twenty-four hours. That of children is from 1.5 to three grams per kilogram. This is the only calculation the physician needs to make. After the protein requirement is calculated, the necessary calory content of the diet is obtained by adding enough carbohydrate and fat to maintain the patient at his ideal weight, always giving more carbohydrate than roughly in the proportion of two to one.

Even this calculation can be avoided by adopting a single beginning diet for adults and three for children, depending on the age. This has been the practice both on my service at St. Luke's and in my office for the past two years.

As soon as the patient becomes sugarfree on this diet, with or without the aid of insulin, the allowance of carbohydrate and fat is increased or decreased depending upon whether one desires the patient to gain or lose weight. The patient's weight is the best guide to his calory requirements, and his four daily urine tests are the best guide to his insulin requirements. The protein of the diet is not increased much above the ideal theoretical needs.

The figures for these four diets (which can be carried about on a prescription blank) are all one needs to begin the treatment of any diabetic patient not having fever or severe acidosis. These diets contain adequate amounts of protein, liberal carbohydrate, and relatively low fat. Theoretically even a lower fat content would be desirable, but the practical difficulties of calculating the extremely low fat diets have argued against them. These diets represent the considered result of ten years of experiment in the wards of St. Luke's Hospital, and their use has simplified and improved the care of the diabetic on the wards, in the clinic, and in the diet kitchen. (Table I.)

These are beginning diets. How much do they have to be increased to maintain the patient at his ideal weight? It differs with each individual patient. The author has one patient, a woman, a hard-working school teacher, who has maintained her weight and health for the past three years on less than 1,000 calories daily. Another

TABLE I .- BEGINNING DIABETIC DIETS*

	С	P	F Calories
Adults	120	65	50 1190
	90	45	20 720
8 yrs	100	60	30 910
12 yrs	110	75	40 1100

^{*}These should be increased to maintenance requirements as soon as the diabetes is controlled. A main tenance diet is one which keeps a patient at his ideal weight, and it differs for each individual. The patient's weight is the only reliable guide to his calory

TABLE II .- THE FLUID DIET

To be used during acute infections, following coma treatment and postoperatively

		C 122-P 21-F 7-Calories 635	
7	AM.	Orange juice 6 oz	
9	A M	Buttermilk 6 oz	
11	AM	Orange juice 6 oz	:.
1	P M.	Buttermilk 6 oz	
3	P M	Orange juice 6 oz	
5	PM.	Buttermilk 6 oz	٠.
7	P M	Orange spice	
9	P M	Buttermilk 6 oz	

Skimmed milk may be substituted for buttermilk, and ginger ale for orange juice with no change in food value. Water, clear broth and tea or coffee (with out cream or sugar) are allowed as desired. Insulin is given by the "color formula" with this diet.

patient, a man, after a severe and wasting infection, required over 3,000 calories to bring him up to his normal weight and needs almost that much to maintain him at his optimum weight. In general, however, for both adults and children the carbohydrate need not go above 200 grams, with the fat about half of that.

For the patient first seen in fever a fluid diet is necessary. This is even more simple than the above diets for it is prescribed by the glassful. It consists of buttermilk and orange juice given in six ounce amounts alternately q. 2 h. for eight feedings-four of each. Skimmed milk may be substituted for buttermilk if desired with no change in food value. Other fluids such as water or clear broth, tea, and coffee (without cream or sugar) should be given liberally. This diet is used in the presence of fever from any cause. It is also the fluid diet used after operations and following coma treatment. (Table II.)

Insulin

The amount, frequency, and method of determining the dosage of insulin depends upon the particular phase of diabets which is being treated. There are four types of cases that have to be considered because the method of giving insulin differs in each: (1) the ambulatory patient; (2) the fever patient (mild acidosis); (3) the operative patient; (4) the coma patient (severe acidosis).

1. The Ambulatory Patient. The four daily urine tests are the basis of insulin dosage for the ambulatory patient. If sugar appears after any meal, five units of insulin are given before that meal on the following day. If the specimen before breakfast shows sugar, three to five units of insulin is given either at 11 P.M. or 4 A.M. An alarm clock is part of the regular equipment if the latter is necessary. An average adult diabetic can begin on five units before each meal and raise or lower it (depending upon the tests) until the proper dose is established. The insulin given at night is not increased above five units at any time. The average patient, when stabilized, can get along on two doses daily, before breakfast and before supper. Young children should begin on two or three units before meals and work up Ordinarily the insulin dosage should be raised or lowered both in adults and children not faster than two units a dose. Older patients with arteriosclerotic kidneys will sometimes show blood sugar values up to 300 mg. with sugar-free urine. Therefore, frequent blood sugar determinations should be done on these patients, in addition to the urine tests. Insulin should be given cautiously to these patients because of the possible presence of coronary disease in which insulin reactions may be fatal.

- 2. The Fever Patient. During fever the glucose tolerance of the patient varies so greatly from hour to hour that the usual method of giving insulin is impracticable. A more flexible method is necessary. All fever patients, therefore, have their urine tested with Benedict's solution every two or three hours and insulin is given by the "color formula." This is the method of choice whenever the fluid diet is given whether it be during a fever, after operation or following the coma treatment. The "color formula" is shown in Table III.
- 3. The Operative Patient. This patient needs stored glucose to combat the acidosis that in some degree follows any operation whether due to liver damage from anesthetic, starvation, or both. Of necessity no food can be taken by mouth immediately preceding the operation.

It is my routine practice now to give two or three hours before the operation an infusion of 1,000 c.c. physiological saline solution with fifty grams of glucose. Twenty-five units of insulin are given sub-cutaneously at the same time. Should the patient be in shock this procedure is repeated after the operation. The patient is then placed on the fluid diet.

4. The Coma Patient. The principle to be followed here is a large first dose of insulin and frequent subsequent doses. The initial dose of insulin in coma is one unit per kilogram of body weight. This will be at least fifty units for the average adult. Then give twenty units every half hour until the urine (which is tested every half hour by Benedict's solution) is "green" or the blood sugar is 200 mg. Then the urine can be tested every one or two hours, and insulin given by the "color formula."

TABLE III.—COLOR FORMULA FOR GIVING INSULIN

The urine is tested with Benedict's qualitative solution every 2 or 3 hours and insulin given as below.

Coma

Diabetic acidosis requires prompt and careful treatment at all times, but when it has progressed so far as coma, a real emergency exists. The hospital is the only place where these patients can receive adequate care. Temporizing is dis-

First, be sure the coma is due to diabetic acidosis. The only infallible test is a blood sugar and CO2 determination. If the blood sugar is 300 mg. or more and the CO2 is below twenty-five vol. per cent, the coma may be regarded as

due to diabetic acidosis.

Occasionally it is difficult in a diabetic to distinguish between coma from acidosis and coma from hyperinsulinism. The presence of sugar in the first specimen of urine does not exclude insulin coma, for hypoglycemia develops rapidly, and the sugar may have been excreted before the hypoglycemia occurred. The inclusion of some glucose in the first infusion will clear up almost immediately a coma due to hyperinsulinism and will not materially harm a patient suffering from acidosis. Hence, it is always to be used when in doubt.

The history is valuable in differentiating between these two conditions. Coma due to acidosis (diabetic coma) is always caused by one of three conditions: (1) Overindulgence in food; (2) sudden withdrawal of insulin; or (3) infection. The onset is slow with increasing fatigue over a day or two. The person is tired. This is followed by drowsiness, vomiting, and coma with "air hunger" and acetone breath.

Coma due to overdosage of insulin is sudden in onset, almost a matter of minutes, and when profound is accompanied by epileptiform seizures. A normal dose of insulin will cause reactions if followed by: (1) Undue exercise; (2) omission of the meal following the insulin; or (3) vomiting the meal following the insulin.

The treatment of coma due to hyperinsulinism is one c.c. of adrenalin at once to be followed at once by intravenous glucose. The cure is prompt and dramatic. Lesser grades of insulin reactions can be cleared up by taking the juice of one orange or two lumps of sugar by mouth.

Treatment of coma due to acidosis should be vigorous and prompt. The im-

If the test is orange give 15 units of insulin. If the test is yellow give 10 units of insulin. If the test is green give 5 units of insulin. If the test is blue give 4 oz. of orange juice.

Do not continue giving orange juice according to this formula if the test remains blue.

mediate and indispensable need is fluid. It is more important than insulin, for insulin is ineffective until the body fluid

is restored. Upon admission a specimen of blood should be taken for a sugar and CO2 determination. While waiting for this report, 1,000 c.c. of physiological saline should be given at once intravenously or subcutaneously and repeated in six or eight hours. In severe cases, a continuous infusion is advisable up to 3,000 c.c. or even 5,000 c.c. Insulin should be given as outlined above. The patient must be kept warm. If there is evidence of gastric distention a lavage should be done, a cleansing enema given, followed by six ounces of hot black coffee or normal saline by rectum q. 3 h. When the patient becomes conscious hot broth or coffee is given by mouth in frequent small amounts-1/2 glass every half hour.

Glucose is not administered during this early intensive treatment of coma. The patient is already saturated with it and more will only delay recovery. There is one exception to this procedure. That is when doubt exists as to whether the coma is due to hyperglycemia or hyperinsulinism. In this event fifty grams of glucose with the first infusion covered with the initial dose of insulin should be given. The insulin should not be given however until twenty minutes after the

infusion is begun.

In from two to six hours after this treatment, the acidosis will be under control. The patient is then placed on the fluid diet and insulin is given by the "color formula." If the coma has been unusually prolonged or severe, however, the patient may die in spite of normal blood-sugar and CO₂ findings. Hence, the importance of prompt and vigorous treatment from the start.

Diabetic Surgery

Finally, just a word about diabetic surgery. Carbuncle and gangrene are the most frequent surgical complications of diabetes. A carbuncle presents no unusual surgical problems. The treatment of gangrene, however, frequently requires wise judgment on the part of the surgeon. A small beginning gangrene of the toe will sometimes clear up on bed rest and control of the diabetes alone. Should

the gangrene persist, surgery is indicated. An open sore of six weeks' duration suggests the presence of osteomyelitis. X-ray of the toe at this time will usually show destruction of the bone.

The question is whether to resort to radical or conservative treatment. In general, if the foot is warm with no pain and there is good pulsation of the dorsalis pedis artery, conservative surgery is indicated. That means amputation of the toe well above the area of infection. If pain is a prominent symptom with a cold foot and absence of a pulsating artery, amputation of the foot is indicated. A moist gangrene with spreading cellulitis and lymphangitis up the leg calls for more radical surgery. The most conservative treatment under these conditions is an immediate thigh amputation.

The management of the usual acute surgical emergencies, such as appendicitis, in a diabetic patient is a special problem. These cases are usually admitted in severe acidosis, and if possible two or three hours should be devoted to controlling this condition before operating. This does not add to the surgical risk but reduces it, for these patients are often dehydrated and in shock, and measures directed toward overcoming the acidosis will at the same time combat the state

of shock.

A blood-sugar and CO₂ determination should be done at once. During the hour it requires to report on these, an infusion of 1,000 c.c. of saline is given with fifty grams of glucose and twenty-five units of insulin. After this the urine is tested every half hour and twenty units of insulin given each half hour until the urine test is "green." In this way 105 units can be given in the two hours preceding operation, and the patient will be a much safer operative risk. A similar infusion after the operation with the same glucose and insulin is often helpful. The patient is then placed on the fluid diet and insulin given every two or three hours by the color formula."

It has been shown that wounds heal more quickly with a slightly increased protein allowance. Therefore, as soon as solid food can be taken the patient receives the standard adult diet with 1½ grams of protein per kilo. of body weight instead of the usual one gram.

Summary

- 1. The diagnosis of diabetes is easy, and depends upon the performance of two tests, which can be carried out by the general practitioner.
- 2. The successful treatment of diabetes depends upon ability to interest and educate the patient in the management of his own case. This consists of teaching him: (1) To calculate his diet; (2) to test his urine for sugar; and (3) to give himself insulin. He is not safe until this is accomplished. The dietitians, nurses, and other diabetic patients of the community are the persons best fitted to undertake this task.
- 3. The criteria of successful treatment are: (1) A sugar-free urine; (2) a normal blood sugar; and (3) a weight within ten per cent below the average for age, height, and sex.
- 4. The physician needs to be familiar with only one diet on which to begin all adult patients. Three diets are necessary for children because of the different needs of the various age groups. The figures for all of them can be carried in one's pocket on a prescription blank, or one can always begin with the fluid diet.
- 5. The method of giving insulin varies with the condition to be treated.

- (a) In coma. One unit of insulin per kilogram of body weight as the first dose, followed by twenty units every half hour until the acidosis is under control. (b) In fever. Insulin is given every two or three hours by the "color formula." This is a flexible and foolproof method of giving insulin during fever.
- The ambulatory patient receives insulin at meal time and possibly a small dose at night. Any adult can begin with 5-5-5, and many, after they are stabilized, can get along on a dose before breakfast and before supper only. In preparing a patient for operation a special method of giving insulin is necessary, which has been described.
- 6. The coma patient needs fluid first, then insulin, and last of all glucose, which is to be started after the patient's own blood sugar has been reduced to about 200 m.g. The one exception to withholding glucose is when the diagnosis is in doubt. In this event give glucose with the first infusion.
- 7. Diabetes is no longer a contraindication to operation. In acute surgical conditions at least two hours should be devoted to the preparation of the patient. All operative cases should receive saline, glucose, and insulin preceding the operation.

 960 PARK AVENUE

The Tenth Conference of the International Union against Tuberculosis will meet in Lisbon, Portugal, September 7-10, 1936, under the chairmanship of Prof. Lopo de Carvalho, President-elect of the Union. The Biological subjects "Radiological aspects of the pulmonary hilum and their interpretation" will be presented by Prof. Lopo de Carvalho. Among the ten countries to take part in the formal discussion, the United States will be represented by Dr. Henry C. Sweeny, Medical Director of Research of the Chicago Municipal Tuberculosis Sanitarium. The report on the Clinical subject, "Primary tuberculosis infection in the adolescent and the adult," will be given by Dr. Olaf Scheel of Norway, and Dr. Robert E. Plunkett, Director of the Division of Tuberculosis, New York State Department of Health, will represent the United States in the discussion. The opening report on the Social subject, "The Open Case of Tuberculosis in rela-

tion to family and domestic associates," will be presented jointly by Dr. Charles J. Hatfield, Director of Henry Phipps Institute, Philadelphia, Pa., and Dr. D. A. Powell, representing Great Britain. The Organization Committee of the Conference has secured reductions in hotel prices and railroad fares. It has also prepared an attractive program of receptions and excursions to enable members of the conference to visit the chief anti-tuberculosis institutions of Portugal and, in addition, to see some of the most picturesque scenery of the country. Members of the Union are invited to take part in the conference without payment of a fee. Other persons may participate as "Members of the Conference," and application should be made through the National Tuberculosis Association, 50 West Fiftieth Street, New York. Plans for a special party to the Conference may also be secured by writing to the Association.

SIMPLE MASTECTOMY WITH X-RAY IN TREATMENT OF CANCER OF BREAST

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The publication in 1894 of Halsted's paper1 on the results of his method of operating on cases of cancer of the breast profoundly influenced surgical procedure in the treatment of these cases His method involved a greater removal of tissue than had hitherto been proposed as a routine measure, although extensive operations had been employed in ad vanced cases by older surgeons, especially Moore, Velpeau, and Paget Halsted advocated the removal of the supraclavicular glands because at times the metastasis passes direct to the glands of the neck without affecting the axillary group although ordinarily they become involved at a later stage than the axillary glands The removal of the pectoralis major was insisted upon since the researches of Heidenhain into the spread of cancer cells in carcinoma of the breast showed that small infected portions of the mammary gland might easily be left behind embedded in the superficial layers of this muscle In addition, of course, he practiced the complete clearance of the breast and the axillary contents

It appears to be very generally ad mitted that with Halsted's technic, operative procedures have reached their limit and that present methods can not be extended any further with benefit to the putient. The great advances in surgical technic have not, however, been attended with results that are over encouraging since the rate of mortality from cancer of the breast has been either stationary or increasing

Since 1914 there has been a steadily growing tendency to employ x-ray therapy in conjunction with surgery in the treatment of breast cancer, and as a result a small, but definite, increase in life expectancy postoperatively becomes apparent It will undoubtedly be conceded that even with the most radical types of surgery many microscopic foci of cancer will be left behind and that the possibility of

their removal at the present time is dependent upon the use of such physical agents as x-ray and radium Since sur gery is handicapped by its mability to remove many unseen foci of disease, it seems reasonable to conclude that any more favorable results obtained when a ray therapy is combined with surgery should be attributed to the use of x ray That radical surgery is superior to in complete surgery in this type of case has been definitely settled and admits of no further argument, but with the advent of such a powerful therapeutic agent as the x-ray the possibility arises that less ex tensive surgery when followed by ade quate a ray treatment might give results as good, or perhaps even better, than those obtained with radical removal

With this thought in mind, it seemed worth while to investigate a group of available cases in which some type of in complete surgery was practiced, which had received sufficient a ray treatment following the operation. In all, forty cases were collected during the past fourteen years Simple mastectomy was the usual surgical procedure employed and in over half the cases the breast was re moved with the cautery. The axillary and supraclavicular glands were removed only when definitely enlarged and palpable, while the pectoralis muscle was always left intact. In a few cases the superficial pectoralis fascia was also removed, but no attempt was made to systematically clear the axilla or otherwise follow the technic prescribed for radical mastectomy All diagnoses were confirmed by microscopic sections and the tumors were graded as to their degree of malignancy

Although the series is small it appears to be representative. The patients ranged in age from thirty years to eighty three years, and the discovery of the mass in the breast antedated the operation, according to the patients' statements, by one week to six years, the average being

three and one-half months. All the usual types of malignant growths of the breast were encountered, adenocarcinoma being the most frequent with a lesser number of scirrhus and duct carcinomas. The degree of malignancy exhibited by the tumors according to the scheme of Broders is comparable to the results obtained by others using this classification.

In our series of cases there were 5.8 per cent Grade I cancers; 11.7 per cent Grade II; 38.2 per cent Grade III, and 44.6 per cent Grade IV. Greenough² in a report of 90 cases found 6.6 per cent Grade I; 21.1 per cent Grade II; 47.7 per cent Grade III, and 23.3 per cent Grade IV. In a larger series of 104 cases from the Brooklyn Hospital, Grace³ reported 8.6 per cent Grade I; 15.3 per cent Grade II; 33.6 per cent Grade III, and 42.3 per cent Grade IV.

Every case in the present group received deep x-ray therapy during the entire period of their postoperative life, and while it is debatable whether a few of the cases (two, and possibly three) had received sufficient dosage the remainder all received an amount of treatment that was considered proper by competent radiologists.

The fate which may be found to have befallen any particular case is dependent upon a vast multiplicity of factors of varying importance and to consider all of them is beyond the scope and possibility of this contribution. The literature provides a number of different methods both of grouping and calculating end results of operation for carcinoma of the breast. For our present purposes it may suffice to take into account only two of the factors concerned, namely (a) the nature of the operation performed and subsequent treatment, and (b) the period of time after operation at which the investigation is made. All types of operation fall into two groups, the complete and the incomplete. The incomplete operation includes all cases in which the extent of the operation is less than that advocated by Halsted, Handley, Rotter, and other surgeons who have devised radical methods for the removal of affected tissues. In this group are to be placed those cases in which only the breast was removed, possibly some axillary glan is and a varying amount of skin and fasci.

Agreement has not yet been reached as to the length of time which should elapse after operation before a patient may be regarded as "cured." By far the larger number of authors have taken three years as the interval after operation upon which to base their results. Some authors, and more particularly those reporting results in more recent years, have extended the period to five years. It is, therefore, possible now to present statistics showing the end results of incomplete and radical operations for both three and five year periods.

The group of cases which we are reporting are classed as incomplete and the results which were obtained may be compared with those in which the radical operations were employed, always keeping in mind that subsequent x-ray therapy was stressed in our series.

There were 52.9 per cent three year cures in the present series. Greenough et al⁴ in 1907 reported 28.7 per cent three year cures in 260 cases; and fourteen years later reported 41.2 per cent in sixty-nine cases. Halsted in 1907 had 38.3 per cent in 204 cases and Judd⁷ in 1914 reported 48.2 per cent in 324 cases. In 1921 Mills⁸ investigated 125 cases with a three year cure of 49.2 per cent. Statistics covering a very large series of patients have shown that on the average radical removal of the breast results in 43.2 per cent cures after three years. It would seem that the approximately ten per cent better results which our cases showed at the end of three years in spite of incomplete surgery is to be attributed to the adequate administration of x-ray therapy. This contention is borne out by the reports of Perthes^o and those of Lehmann.10 In fully rayed cases following radical amputation of the breast Perthes obtained 51.3 per cent three year cures and Lehmann in similarly handled cases had 47.5 per cent while Anschutz and Hellmann¹¹ could show sixty per cent. Although it is generally recognized that surgery and x-ray are of inestimable value in this condition it would be extremely unwise to leave out of consideration the important part that the stage of the disease plays in determining the final outcome. At a time when the disease is still local and no secondary growths have occurred, the percentage of survivors at

the end of three years is from sixty five per cent to eighty per cent. If secondary growths have appeared the percentage talls to thirty per cent or less, while less than nine per cent survive as long as three years when the disease is advanced. It is not easy to determine whether a growth has ceased to be local nor is it casy to divide the life of a cancer into stages. The variety of cancer and its grade of malignancy of course greatly influences prognosis, but early removal no matter what the grade should always be a prime consideration.

All the authors quoted above have reported their findings at the end of a five year period in addition to those obtained after a three year interval, so that it again becomes possible to compare the end results of simple mastectomy combined with years and those of radical surgery

At the end of five years we had 441 per cent survivors. Greenough et al m 1907 in the same 260 cases on which a three year report was made found 229 per cent five year survivals and in the 1921 series these authors had 305 per cent of the patients still alive There were 289 per cent five year cures in Halsted's 1907 series of 204 cases while Judd in his 324 cases had 44.4 per cent and of Mill's 125 cases 368 per cent survived The review of a large series of cases brings out the fact that about 339 per cent of all patients subjected to radical mastectomy survive for five years Again we may attribute to x ray therapy the somewhat better showing in our series That remarkable results may be achieved when a ray therapy is sufficient both in dosage and duration of treatment is demonstrated by Anschutz and Hellmann who report 55 5 per cent five year cures

For ease of comparison the above quoted figures are placed in tabular form

(Table I)

TABLE I - END RESULTS OF BREAST CANCER THREE AND FIVE YEARS POSTOPFRATIVE

Greenough et al Greenough et al Halsted Judd Mills Perti es Lehmann Prassent Skries	Percentage End Result 3 yrs 5 51 28 6 22 41 2 30 38 3 28 48 2 44 49 2 36 51 3 47 3 60 0 55 52 9 44	s No of rs Cases 9 260 5 69 9 204 4 324 8 125	1 ear 1907 1921 1907 1914 1921 1920 1920 1921 1935	Remorks Radical removal and fully rayed Radical removal and fully rayed Radical removal and fully rayed

Comment

A study of these figures would seem to indicate that x ray therapy everts a small but nevertheless quite definitely beneficial influence on the postoperative duration of life in breast carcinoma

When we come to a consideration of such events in the course of the disease as local recurrence and metastases, we realize the distinct bearing that the type of operation employed has on these features Analysis of a large series of eases indicates that when \ ray is omitted from the treatment there are relatively more deaths from metastases under radi cal methods than there are from incomplete methods of removal, but with radical surgery the total number of deaths and the number of recurrences is reduced Some interesting evidence bearing on this phase of the subject is provided by Meissl,12 who worked up v Liselsberg's figures in Vienna When only the growth was enucleated and the axillary glands removed if enlarged there were 628 per cent recurrences and 17 1 per cent metastases If the breast, enlarged axillary glands, and pectoral fascia were removed there were fifty per cent recurrences and 208 per cent metastases, while complete radical amputation resulted in twenty-five per cent recurrences and 366 per cent metastases In our series of cases, 274 per cent showed some evidence of local recurrence during the period in which they were receiving x ray treatment Because we were unable to determine the exact mode of death in a number of cases, no attempt has been made to calculate the frequency of metastases In all instances in which the cause of death was not definitely known, it was assumed to be a cancer death

In evaluating the significance of all the available data many factors come into

play some of which appear to assume an importance perhaps greater than the particular method of surgery used. No matter what the type of operation may be, better results are always attained in the early stages of the disease while it is still local in the breast than after it has begun to metastasize and no amount of surgery —be it ever so radical—nor subsequent x-ray therapy can completely compensate for loss of time. That the character of the neoplasm and its grade of malignancy play their part can not be denied. Basing our judgment merely on the study of this series of cases we are inclined to believe that with adequate x-ray therapy and simple mastectomy which entails none of the loss of function and few of the disabilities and disadvantages, especially metastases, associated with radical removal, it is possible to produce end results which are as satisfactory as those of any of the other procedures in common practice at the present time.

Conclusion

Forty cases of carcinoma of the breast subjected to incomplete removal (simple mastectomy) combined with x-ray treatment are presented. The end results of this method appear to be comparable to those attained by modern radical methods (radical mastectomy).

> 121 FORT GREENE PL. 1219 DEAN ST.

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AN OFFENSIVE OFFENSIVE

The chiropractors have launched a twofold offensive against the educational barriers erected by the state to safeguard the public against quackery in healing. One of the bills proposed by Assemblyman Hill exempts chiropractic from the definition of medicine laid down in the Medical Practice Act. The other provides for legislative recognition of chiropractic by the creation of a state licensing system. Adoption of either measure, says the New York Medical Week, would destroy existing protection of the public health and open the field of healing to the incursions of quacks of all types.

There is nothing in the theory or results of "spinal alignment" to warrant tampering with the model medical practice laws of this state. Osteopathy, which is closer than any other sect to chiropractic, repudiates it flatly. No one in or out of the cult has been able to define its scientific pretensions precisely enough to permit the formulation of a curriculum which would impart the doctrine of chiropractic while assuring the public of the benefits of modern scientific knowledge.

If chiropractic, with its fallacious theory and irrational methods, were sanctioned by the state, it would be an invitation to every other irregular cult to bring pressure to bear for legislative recognition. There can be no compromise with quackery, and the state must firmly and unequivocally quash any attempts to surrender healing to the ignorant and unfit.

A MEDICAL FAIRY TALE

In an interesting article on the care of the famous Dionne Quintuplets, Dr. Dafoe describes, in the Canadian Medical Association Journal, the various methods of feeding that proved successful in these difficult cases. After a few days on milk, water and corn syrup, with a few drops of rum, the babies were given mother's milk sent from Toronto, for nearly four months. They were then changed to evaporated milk, to which acidophilus bacilli were added, until they were one year old, on

May 28, 1935. When nearly two months of age, they were given orange juice, and they received cod liver oil from July 9, 1934. After October they had a cooked cereal, and beginning in January, 1935 the customary vegetables, fruits, and egg yolk were added. In looking backward over the first year of these babies' lives, says Dr. Dafoe, "I feel that their history portrays a modern fairy tale with a medical flavor."

ANALGESIA IN LABOR

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During the past ten years, several methods of producing analgesia during labor have been proposed. The writer wishes to record his experience with the method described by Gwathmey et al¹ in 1923 and the results obtained in a consecutive series of 400 personally conducted cases.

The technic which has been adhered to, with very little variation, is as follows:

As soon as the patient is in labor, she is given a cleansing enema of one quart of water to which no soap is added because of the possibility of irritating the rectum and sigmoid. The routine preparation by shaving and scrubbing with green soap and water is carried out and a sterile pad applied to the vulva. Next, the operator's hands are scrubbed, a sterile glove put on and a vaginal examination made to determine the degree of dilatation. From this one may estimate the probable length of labor and determine when to start the analgesia. However, it has been the writer's practice to use the drugs as soon as the patient complains of pain rather than to wait for some arbitrary degree of dilatation. If we adhere to the method of waiting to give the drugs when the patient has a dilatation of three fingers with pains every three-four minutes, the beneficial effects of the drugs will be lost in most cases which deserve them. The writer agrees heartily with McCormick2 who says:

Substitute the degree of the patient's discomfort for the degree of cervical dilatation in determining the time when the sedatives and the rectal instillation are to be given.

Before the patient is given the drugs, she is told just what is to be done and what is expected. The writer feels that this mental preparation is very important. The patient's cooperation is an absolute essential, whatever method is used. If the patient is apprehensive of each needle prick or rectal instillation, she will not get the full benefit from the drugs.

When the patient complains that the pain is more than she cares to endure, she is given an intramuscular injection of morphine grains 1/6 dissolved in two c.c. of fifty per cent magnesium sulphate solution

which can be procured in sterile ampoules. This injection is given in the upper, inner quadrant of either buttock, using a 1½ inch needle. The drugs are injected deep into the muscle, withdrawing the needle slowly as the fluid is used up so that the whole bulk will not be deposited in one spot. The injections are never given in the arm, thigh, or leg. The patient is told to get into the most comfortable position and let herself relax as much as possible. The shades are pulled down and quiet is enjoined upon the nursing staff. All handling of the patient is done as gently as possible. If one of the family insists upon staying in the room, there is to be no conversation.

If, as happens many times, this injection is sedative, nothing further is given until the patient again complains. If there is no sedation within twenty minutes, she is given another intramuscular injection of two c.c. of fifty per cent magnesium sulphate without morphine, followed by the rectal instillation. This consists of quinine (alkaloid) twenty grains, alcohol forty-five minims, ether 2½ ounces, and olive oil q.s.a.d. four ounces, known as Rectal ether 1. The instillation may be given in one of two ways, viz: Catheter and funnel or Cowan's technic. The latter is the one which has been used exclusively by the writer and consists of the use of an all-glass syringe to which is attached a small rectal tube. The patient lies on her left side with the knees drawn up, the anal area is well greased with any surgical lubricant. The syringe is filled with the rectal-ether solution, the plunger is put in the syringe and all air excluded from the tube. The tube is then well greased and inserted into the rectum for four-five inches, remembering that the direction of the rectum after it leaves the anus is upward, forward, and to the left. If this latter information is kept in mind, the physician or nurse will experience little difficulty in inserting the rectal tube high enough so that when the drugs are deposited in the rectum, there will be little likelihood that the patient will expel them. If the drugs are deposited just within the sphincter, the chance of retention is poor. If the fetal head is low in the pelvic canal, one may experience a little difficulty in inserting the tube but a little patience and manipulation will overcome this obstacle.

Occasionally, after introduction of the tube, one finds that the contents of the syringe cannot be expelled without consider-

The assistance of Dr. Wesley Van Deusen in the preparation of the statistics and of Dr. Clarence Graham in the preparation of the charts and helpful counsel is hereby gratefully acknowledged.

able pressure, but excessive pressure should never be used. If the tip of the tube bends and closes the lumen, the tube should be withdrawn slightly until it straightens out. After the rectal instillation is made by ininjecting part of the rectal ether between pains in two or three portions, the tube is withdrawn while a vulva pad is held against the anus.

During the first few moments after instillation, the patient may complain of a desire to defecate. When this sensation occurs, she is told to open her mouth, pant like a dog, and draw in with her sphincter. The sensation will pass off in a few moments in the majority of cases. Usually within ten to fifteen minutes or less, the patient is drowsy and some patients actually pass into a light sleep from which they can always be aroused. The stage of anesthesia is never reached. Often the odor of ether appears on the patient's breath, even during the instillation, showing how quickly ether is absorbed from the rectal mucosa and dispersed through the blood stream.

With patients weighing up to about 150 pounds, the writer has found that this initial dose of rectal drugs will usually be sufficient for satisfactory analgesia for a period of one to three hours. For heavier women, one may have to add more other and oil. For this purpose, a mixture is used known as Regal ether 2, which consists of ether 2½ ounces and olive oil 1½ ounces; sometimes half of this quantity is given and sometimes all of it, depending on the effect.

Whenever the rectal instillation is repeated, it is always with Rectal ether 2, unless otherwise specified. The reason for this is that in many cases labor has been induced with Watson's method which makes use of thirty grains of quinine in divided doses by mouth. When the patient gets her first rectal instillation, she receives twenty grains more of the quinine which means that, many times, she has received fifty grains within twelve hours or so. To give more quinine in succeeding doses of rectal ether would, perhaps, be dangerous to the fetus. There have been a few reports in the literature of fetal deaths chargeable to the use of quinine. So far, in the writer's experience, there has been but one case that he feels could have been charged to this effect.

Rectal ether given as described rarely produces a "stage of excitement." The writer remembers but one patient who required actual restraint; she could not speak English and did not understand what was being done. In the majority of cases, the woman curls up in the position in which she received the rectal drugs, remains so

or rolls from one side to the other, grunting or giving some notice that she is aware of the contractions. Occasionally, patients cry out with pain but even when this occurs, the after-memory is poor or blotted out entirely. Many patients have no recollection of the trip to the delivery room where a few whiffs of ether suffice to complete delivery.

As to the repetition of the drugs, the patient's comfort is the criterion. Usually, one injection of morphine sulphate grains one-sixth dissolved in two c.c. of magnesium sulphate fifty per cent intramuscularly followed by the rectal instillation of Rectal ether 1, and the intramuscular injection of two c.c. of magnesium sulphate without morphine will suffice to carry the patient from one to several hours. A later instillation of Rectal ether 2 will usually suffice to carry the patient quite comfortably to the stage of complete dilatation. From then on, she will be put on the delivery table and given whiffs of ether. Occasionally, one will need no further anesthetic for a comfortable delivery. If the labor is unduly prolonged, the morphine may be repeated if about three hours have elapsed since the last dose and the end of labor seems to be more than an hour away. The writer has used as many as four injections of morphine and four instillations of rectal ether with impunity in a labor lasting about 120 hours.

As experience has been gained with the passage of time, the writer believes that with this method we have as nearly a safe method, as well as a certain one of relieving the pain of labor, as is possible; one that can be used by any practitioner in the home or the hospital; one that has hardly a contraindication except the uncommon one of rectal disease; one that is inexpensive, easy to handle, can be given by the nurse as well as the physician, and one that can be given at any stage of labor with impunity.

The patient's response to this type of help during labor has been most gratifying. The multipara who has been delivered in past years when little was done to mitigate the pain of the first and second stage of labor is the one who appreciates it most. The primipara of today expects some such method to be used.

As for complications, they have been few and those not serious. There were three gluteal abscesses at the site of the injection of the magnesium sulphate. These healed promptly after incision and drainage. There was one ether burn of the buttock due to the expulsion of the rectal drugs, undetected by the nurse; this was only first degree and healed promptly after use of emollient applications. There were three cases of diarrhea apparently caused by the ether which were relieved in a few days by the use of starch enemas and bismuth preparations. There has not been one case of ether pneumonia in spite of the fact that patients came to delivery with colds, both nasal and bronchial. Not once has it been necessary to wash out the rectal drugs because of a bad reaction. It has been used as indicated in every type of case with cardiac, renal, and toxic complications and maternal and fetal dystocias. Not one case of contraction ring dystocia has occurred in the writer's practice since this method was adopted even though all types of manipulation have been done as was necessary. Previous to this, the complication was not infrequent. If rectal analgesia will prevent the occurrence of this dreaded complication in the average man's hands, it has filled an important niche in the practice of obstetrics. Postpartum hemorrhage has not occurred in this series. It has been the writer's practice, for several years, to use Infundin (B. W. Co.) 1/2 c.c. hypo during the second stage when indicated or if none is used then, it is given immediately after the birth of the baby. Consequently, the placental stage is short and blood loss is minimized. Credé expression of the placenta is practiced if there is not spontaneous separation within ten minutes. Immediately after placental delivery, a hypo of 1/2 c.c. of Ernutin (B. W. Co) is given. The combination of these two drugs is usually enough to hold the uterus in good tone and prevent undue postpartum bleeding. They may be re-peated as indicated. In toxic cases with high blood-pressure, Pitocin (P.D.Co) is substituted for the Infundin,

There have been very few cases of fetal asphyxia which could be charged directly to the drugs. If fetal asphyxia occurred, it was apparent that the drugs had been given too near the end of labor. The fetal deaths in this series could be accounted for in nearly every case by some existing disease or malformation which was fatal in itself. Maternal morbidity was very

low and in no instance chargeable to the method except the cases of abscess and diarrhea noted above. There were no maternal deaths.

The incidence of low forceps operations and episiotomies is high, especially in the primiparous group. It is the belief of the writer that these operations, while seemingly radical, are in reality conservative. With a patient under the influence of drugs which rob her of her voluntary powers to a certain extent, labor might be unduly prolonged even though the uterus was efficient. When the presenting part reaches the perineum, a carefully applied low forceps followed by gentle traction simulating the efforts made by the patient to deliver the head will do no harm. Frequently, all that is necessary is to help the occiput to engage under the symphysis. The forceps may be removed and the head delivered by manual expression. If there is good elasticity of the perineum, delivery may be accomplished with little or no laceration, If the vaginal opening is small, not sufficient to allow the doubled fist to come through without danger of rupture, then episiotomy is indicated. The perineal incision is repaired as soon as labor is over. Whether a lateral or a central incision will be made depends upon the extent of the perineum. If it is seen that the anal sphincter will be jeopardized, the writer prefers the lateral incision, otherwise a median one is made. By the use of this method of analgesia plus the use of the outlet forceps, episiotomy where indicated, and taking away all attempts at straining during labor, patients do not suffer postpartum exhaustion nor do they complain of the sensations caused by a weakened pelvic floor when they get out of bed. General body tone is preserved which means a speedier and healthier convalescence.

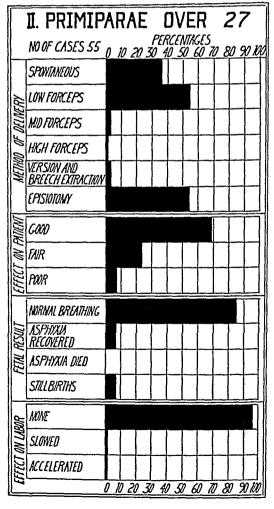
The results in this series of cases are expressed in charts I-III. For convenience and simplicity, the cases have been divided into three groups with arbitrary boundary lines according to age and parity: primiparae under twenty-seven years of age; primiparae over twenty-seven years of age; and multiparae of all ages.

From a study of the charts, certain facts may be deduced. It will be seen from a comparison of the methods of delivery that spontaneous deliveries are slightly more common in primiparae under twenty-seven years of age than in those over that age, and in multiparae reaches the highest percentage. This is to be expected, considered from the angle of muscle tone and elasticity of tissues. In multiparae, there is usually the added advantage that cervical dilation is quicker and that the ligamentous and vaginal tissues have already been stretched. The incidence of low forceps operations is slightly greater in elderly primiparae than in the younger and least of all in the multiparae for the same reasons as given above. The other operations, mid-forceps, high forceps, and version with breech extraction occupy an insignificant place. Episiotomies are less frequent in the young primiparae than in the older ones and least frequent in the multiparae for the same reasons before mentioned.

The effect on the patient has been indicated in three arbitrary classes:

- 1. Good. A result is considered good when the patient gets sedation from the injection of morphine and magnesium sulphate for some time and when sedation is continued by the rectal instillations until she is ready for the delivery table. Sleep may not result but the patient is comfortable and has little recollection of events from the time of the first injection until the end of delivery.
- 2. Fair. A result is considered fair when the patient receives some sedation but not enough to keep her from recognizing pain and is made somewhat more comfortable. These patients may complain as the second stage is reached and require ether inhalation to get them comfortably to the delivery table. Partial loss of memory for pain is present.
- 3. Poor. The result is considered poor when the patient gets little or no sedation.

	I. PRIMIP					:			_		- 1
	NO. OF CASES /73	0 10	2	0 3	PEI 0 4	1CE 0 5	NIA O E	GES SO 7	, 0 8	30 9	0 100
	SPONTANEOUS										
IVERY	LOW FORCEPS										
Œ	MID FORCEPS										
DF.	HIGH FORCEPS										
Q	SPONTANEOUS BREECH										
NETHU	YERSION AND Breech extraction										
	<i>EPISIOTOMY</i>					i					
HIENT	GOOD FAIR POOR				٠.						
TONE	FAIR		•								
EFFEC	POOR	·									
	NORMAL BREATHING										
PESUI.	ASPHYXIA RECOVERED										
FEIML ,	ASPHYXIA DIED						Γ	Γ			
	STILL BIRTHS										
V 1180P	NONE										
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		0 1	0 2	0 :	XO :	10 3	50 6	D I	n a	80 9	010



This may be accounted for in several different ways, and many times is not the fault of the method. The drugs may be given too late in a precipitate delivery. Failure of cooperation of the patient may vitiate the results.

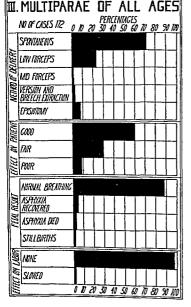
The average results have been good in about sixty-five per cent of the cases for all groups, fair in about twenty-five per cent, and poor in about ten per cent. While these results are not as good as some which have been reported, still the writer feels that they are much better than the average of obstetrical analgesias.

A study of the fetal results shows that about ninety per cent of the babies born under this method are not asphyxiated; that most of the asphyxiated babies recover, and that when death occurs, there is almost always some cause for the death other than the drugs.

There was little or no effect on labor in about ninety-six per cent of the cases.

Summary

1. The method of rectal analegesia for



obstetrical use as given by Gwathmey et al is given in detail.

2. The degree of the patient's discomfort rather than the degree of dilation is preferred as an index of the analgesia necessary.

3. The advantages of the method are: safety, availability for home or hospital use, practical lack of contraindications, economy, and ease of application.

4. The comparative rarity of maternal

and fetel complications is stressed.

5. Low forceps and episiotomies of election were done in a considerable percentage of cases as a conservative measure.

6. The results in 400 cases are indicated in chart form in classifications according to age and parity of the patients, methods of delivery, effect on patients, fetal results, and effect on labor.

7. In primiparae under twenty-seven years of age the methods of delivery were:

Spontaneous 45.3 per cent; low forceps 47 per cent; mid-forceps 4 per cent; high forceps .6 per cent; breech spont. 2.9 per cent; version and breech extraction .6 per cent; episiotomy 50 per cent.

The effect on the patient was: good 69 per cent; fair 20.8 per cent; poor 10 per

cent.

The fetal result was: normal breathing 90 per cent; asphyxia recovered 3.5 per cent; asphyxia died 1.7 per cent; stillbirths 4.8 per cent.

The effect on labor: none 96 per cent:

slowed 4 per cent.

8. In primiparae over twenty-seven years of age the methods of delivery were:

Spontaneous 36.3 per cent; low forceps 54.5 per cent; mid-forceps 3.6 per cent; high forceps 1.8 per cent; version and breech extraction 3.6 per cent; episiotomy 54.5 per cent.

The effect on the patient was: good 69 per cent; fair 23.6 per cent; poor 7.4 per

cent.

The fetal result was: normal breathing 85.4 per cent; asphyxia recovered 7.2 per cent; asphyxia died 0 per cent; stillbirths 7.2 per cent.

The effect on labor: none 96.3 per cent; slowed 1.9 per cent; accelerated 1.9 per cent.

In multiparae of all ages the methods of delivery were:

Spontaneous 71.5 per cent; low forceps 23.8 per cent; mid-forceps 1.7 per cent; version and breech extraction 2.9 per cent; episitomy 8.1 per cent.

The effect on the patient was: good 60.4 per cent; fair 30.2 per cent; poor 9.3 per cent.

The fetal result was: normal breathing 88.3 per cent; asphyxia recovered 5.2 per cent: asphyxia died 3.4 per cent.

Stillbirths 2.3 per cent.

The effect on labor was: none 97.6 per cent: slowed 2.3 per cent.

- 10. There were no fetal deaths attributable to the method.
- 11. The causes of fetal deaths were as follows:
- A. Babies born in asphyxia, death ensuing within twenty-four hours:

1. Cerebral hemorrhage, maternal dystocia.

2. Premature labor, atelectasis.

- 3. Placenta previa, premature labor, atelectasis.
- 4. Placenta previa, premature labor, atelectasis.

5. Premature labor, atelectasis.

6. Cerebral hemorrhage, breech extraction.

7. Premature twins, atelectasis.

- 8. Atelectasis.
- 9. Maternal toxemia.

B. Later deaths:

1. Twins, two days, hemorrhagic disease.

C. Stillbirths:

1. Fetal dystocia, impacted shoulders, elevennound baby.

Macerated fetus, maternal toxemia.

3. Maternal dystocia, flat pelvis.

4. Infra and supratentorial hemorrhage. Qui-

5. Maternal dystocia, flat pelvis.

- Twin, smaller of the twins.
- 7. Placental apoplexy, macerated stillbirth. 8. Placenta previa, intrauterine asphyxia.
- 9. Spina bifida, double hare lip and cleft palate.
- 10. Placenta previa, six months fetus.
- 11. Strangulated cord, intrauterine asphyxia.
 12. Maternal dystocia, flat pelvis.
 13. Encephalocele.

14. Prolapsed cord, dystocia-dystrophia syndrome.

15. Anencephalus.

16. Intrauterine asphyxia, cord around neck three times.

219 LARK ST.

References

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11:169, 1932.

ILLUMINATED SUCTION

GERVAIS WARD McAuliffe, M.D., New York City Department of Surgery, New York Hospital

The need of localized illumination of the throat, in addition to other means of illumination, has often been found necessary in performing tonsillectomies. The suction instrument has always formed an integral part of the armamentarium of every throat operative procedure.

We depend upon it to locate bleeding points in the postoperative fossae for the placement of ties as well as keeping the airway clear of blood. A small bulb was attached to the end of the suction instrument to make light travel with the suction. The two in close companionship could, we thought, reveal much more, and in sharper detail. In our experience with this hybrid of an old and tried adjunct of every throat operation, this proved to be the case.

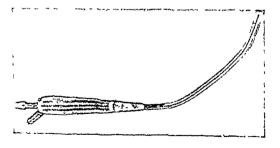
In the accompanying illustrations the light bulb is seen at the end of the shank of

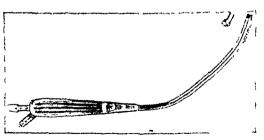
the suction instrument. The suction tip must be removed to detach the bulb if replacement is necessary, or for sterilizing purposes. The bulb is sterilized in alcohol and the rest of the instrument boiled in the usual manner.

At the base of the handle is the contact post for the reception of the electrical current. The flow of current is regulated by a rheostat in the same fashion used for electrical head lights or electrical otoscopes.

We have since found many uses for illuminated suction on the pavilion of the Otolaryngology service at the New York Hospital in postoperative recoveries and its application will possibly become more diversified than relegation to one specific procedure-tonsillectomies for which it was originally intended.

110 West 55 St.





COMPLICATIONS OF GASTRIC AND DUODENAL ULCERS

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Unfortunately, the advent of spring invariably ushers in the recrudescences of gastric and duodenal ulcers with their

serious complications.

It seems appropriate for the entire medical profession to pause and give tribute to the great work accomplished by the internist for the alleviation and cure of gastric and duodenal ulcers. The author and his contemporaries of the older school in New York City highly regard Drs. Janeway and Delafield and their associates for their remarkable ability in making an accurrate clinical diagnosis of this affection with the benefit of no mechanical and very little laboratory aid.

Although the diets of von Leube,1 Ziemssen, and Boas were favorably introduced abroad, the dietary régime of H. Lenhartz2 was perhaps the actual beginning of a scientific dietary treatment. In this country, the famous Sippy method was published and advocated in 1909 by Dr. Bertram W. Sippy⁸ of Chicago, Dr. Max Einhorn, of our staff in 1910 introduced a method for treating ulcer cases by administering the food through a duodenal tube, the lip of which rested in the terminal portion of the duodenum, Dr. Charles Bolton^{5, 6} of London presented his dietary treatment in 1913, followed by that of Dr. Smithies which the latter has used since 1917.

The author admits especial indebtedness to Dr. B. B. Crohni and his associates of Mount Sinai Hospital, New York City, for the many publications, including his excellent book of 1927, that exemplify this treatment and will stand as lasting

memorials to his ability.

These internists persisted in their dietary therapeusis and outlined them so that their successors might benefit by their experience since they had faith in their methods.

Occasionally, these men have been insulted and humiliated by inexperienced surgeons who severely criticized their therapeutic measures when certain patients, under medical treatment, would

hemorrhage or perforate, or, discharged as cured, would be sent in to the surgeon as an emergency case due to a rapid recrudescence and complication.

Nevertheless, the internists, using their dietary treatment for gastric and duodenal ulcers, have undoubtedly established their superiority; while the surgeons continually disagree as to the choice of operative procedures as is evidenced in the operative résumé on collected statistics read by Heuer³ before the 1934 meeting of the Medical Society of the State of New York, and published in its organ (this

have proven inadequate in far too great a percentage of operative cases.

Able and conscientious internists candidly admit that a certain number of gastric and duodenal ulcers, especially the latter, are not amenable to any form of

JOURNAL) January 1, 1935. Because of a

lack of standardization, surgical efforts

dietary or medical treatment.

In 1914, Greenough® presented the remote results of medical therapeusis. He observed cases for over a period of sixteen years with the following results: thirtynine per cent were well, forty-two per cent relieved, twelve per cent unrelieved, and seven per cent resulted fatally. Dr. B. B. Crolin,10 giving a survey of one hundred ulcer cases in his textbook, Affections of the Stomach, stated that upon discharge from the hospital the immediate results were: eighty-six per cent apparently cured and only fourteen per cent remaining unimproved. For the first six months, the patients were relatively immune from recurrences. However, within the first year twenty-seven of these supposedly healed cases (31.4 per cent) already evidenced recurring symptoms. Each year brought fresh recurrences which ultimately resulted in a relapse of fifty per cent of the apparently cured cases. The shorter the period of observation the better were the results.

Without fear of serious contradiction, one may state that forty per cent of gastric and duodenal ulcers are cured by a medical régime, and forty per cent are not, but are relieved, being able to continue their work by utilizing ambulatory treatment with occasional rest in bed. Actually, eighty per cent of these cases are excellently cared for by the internist. This is a record to be proud of considering the fact that these patients often practice indiscretions in both their pre-

We may safely state that about twenty per cent of these patients consult the surgeon. These include cases having complications such as: perforating, hemorrhaging, stenosis with vomiting, and almost constant pain symptoms.

scribed diets and habits.

In the author's opinion most conservative surgeons consider simple closure as the operative measure of choice in dealing with perforation which is the most common complication of ulcer. He believes any attempt to perform extensive surgery such as gastrectomy, or even gastroenterostomy, in an infected field breaks all surgical rules.

The other serious complication of ulcer is hemorrhage. The occurrence of this condition varies from approximately twenty-five per cent to thirty per cent in duodenal, and twenty per cent in gastric ulcers. Hemorrhages may also take place from splenic conditions such as: Vaquez's disease, polycythemia, von Jaksch's disease, Gaucher's disease, and, most important of all, Banti's disease (splenic anemia) when the hemorrhage is so profuse and alarming. Rolleston believed that the enormously distended vasa brevia ruptured into the stomach as a result of torsion of the splenic vein. This was due to the great bulk of the organ which resulted in massive hemorrhages. There is a possibility of encountering hemorrhage in acute and chronic leukemias. Hemorrhage may also occur in Meckel's diverticulum with aberrant gastric tissue in its wall, ulcerations of the small intestines, and, of most importance, in serious pathological changes in the appendix.

In cases of hemorrhage under medical treatment, the mortality varies from two and one half per cent, as reported by Hurst, in five per cent presented by von Bergman, to twenty-five per cent, each, given by Finsterer 12. 13 and Chiesman of London. In the author's classification of hemorrhages of the first and second

grades, the red blood cell count is above 2,000,000, the hemoglobin count above forty per cent, and the systolic pressure above 80 m.m., but less than 80 m.m. in the third and fourth grades.

It is essential to know that the bleeding may be extrinsic to the gastric and duodenal region and may occur in the following liver conditions, viz.: portal cirrhosis, spirochetosis icterohemorrhagea, obstructive hepatic jaundice, malignant tumors of the liver, hypertrophic miliary cirrhosis, hydatid disease, acute necrosis, carcinoma of the common duct, hemochromatosis primary, carcinoma of the gallbladder, calculi of the external biliary system, and cholecystitis. Special emphasis should be given to the congenital obliteration of the bile ducts and latent cirrhosis of Rolleston because of the possibility of the same infection, causing the ulcer, being the source of the cirrhotic change in the liver.

According to Gray's Anatomy, the gastroduodenal artery is a short but large branch of the hepatic which descends near the pylorus behind the first portion of the duodenum. At the lower border of the duodenum, it is divided into two branches, the gastro-epiploica-dextra and the pancreatico duodenalis superior. This is in close relationship with the common duct, anterior to the portal vein.

In the first, second, and third grades of ulcers of a single bleeding, the medical treatment of hemorrhage consists of the administration of a hypodermic of morphine (gr. 1/6), and atropine (gr. one one-hundredth) which should be repeated in order that the patient may enjoy rest and quiet. Small quantities of ice water, about 200 to 300 c.c., each, of chilled ferric chloride (1-1,000) and also silver nitrate solutions (1-1,000), glucose solutions up to fifty per cent, and adrenalin solutions, may be introduced through a Levine or similar tube. If the stomach is distended with blood, a suction should be applied with a syringe or an evacuator to permit the gastric walls to contract.

Dr. Frank Smithies,¹⁴ of Chicago, advised the following medical treatment for bleeding ulcers. Repeated doses of morphine are to be administered which should be given intravenously in shock patients. He prefers the Thomas Bogg method of clotting and estimating of blood-clotting

time. In cases of vomiting, bleeding, and gastric distension, he advocates a thorough lavage with normal saline solution at 110° F., as suggested by the late Dr. Rodman. After a preliminary emptying by lavage, nothing should be given per mouth. For more than twenty years, Dr. Smithies has employed as a nutrient enema the following: eight ounces of normal salt solution, thirty c.c. of syrup of glucose, and thirty c.c. of fifty per cent alcohol, administered by the Murphy drip at body temperature, which is given four times within twenty-four hours. He also advises the administration of fluids intravenously and by clysis to keep up the fluid reserve. In cases where bleeding continues up to thirty-six hours, he advocates operative procedure. Both Hurst11 and Smithies14 prescribe the immobility of the patient by keeping him quiet in bed, reassuring him, and administering sufficient morphine and atropine (one 1/100 gr.) to keep him drowsy. Some internists have advised the use of foods and liquids by mouth, but both Hurst and Smithies disagree with this treatment.

Dr. Lester Unger, the transfusionist of our hospital, who advocates massive transfusions in these cases, thoroughly convinced the writer of the advisability of this method that he has consistently applied it in all such cases, in which he routinely administered 1,000 c.c. of whole blood by transfusion with marked success. If necessary this amount should be repeated three times in cases of massive hemorrhages. In the desperate cases Dr. Unger believes that after severe bleeding a chemical change takes place at the site of the hemorrhage, causing imperfect clotting to occur which has an unfavorable effect on checking the bleeding. Consequently in these desperate cases arrangements should be made for three donors instead of the usual one. If the hemorrhage continues after the administration of the usual medical treatment together with the series of massive whole blood transfusions advocated by Dr. Unger, it is generally conceded that all conservative measures have been exhausted and operative procedures must be considered.

Hurst11 states:

I believe that the only indication for

operation, in the acute stage, is the persistence or recurrence of severe hemorrhage whilst the patient is still fasting, especially in individuals past middle life with a long history pointing to the presence of a chronic ulcer and with arteries so degenerated that they are unlikely to contract sufficiently for satisfactory plugging by thrombosis.

In operative cases of hemorrhage, particularly the third and fourth grades, the procedure usually consists of two stages. In the first stage, under local anesthesia supplanted by cyclopropane, ethylene, or gas-oxygen, surgical intervention should be confined to the source of the bleeding. In the hemorrhagic ulcers of the duodenum, the three vessels that we should bear in mind are the right branches of the coronary or gastric, and the pyloric branches of the hepatic artery in the bleeding gastric ulcers and the gastroduodenalis, a branch of the hepatic.

A complete excision should be made through the healthy tissues, even to a transgastric approach, in the ulcers; if necessary, ligating the "bleeders" with mattress sutures controlling the gastric or pyloric branches. It may be necessary to cut through the gastrohepatic omentum in order to mobilize the gastric area. After mobilization of the gastric area, an incision is made one cm. distal to the pyloric ring. It is brought transversely across the duodenum, holding the superior and inferior angles taut by stay sutures according to the von Haberer technic. The incision should be sufficiently extensive so that the ulcer may be excised by a cautery of low heat. The base of the ulcer should be scarified according to the von Haberer technic and the bleeding kept under control. Then, the resected edges of the ulcer should be sutured together. The exclusion operations of von Eiselberg through the pyloric ring, or Devine of Melbourne, above the incisura, require too much time in patients whose lives virtually hang on a thread. In the before-mentioned operative procedures, the time factor involves the necessity for furnishing a jejunal anastomosis. Again, unfortunately, it leaves the acid producing pyloric antrum intact.

In the writer's opinion there is no question but that the operating surgeon has been unable to find the offending lesion in many cases and has encountered a general

oozing condition which might have been due to extrinsic causes and not ulcers. In such cases the gastric or duodenal area mucous surfaces resemble the appearance of a wet blotter. Faulty diagnosis was often due to an imperfect work-up.

In the third and fourth grouping that the author has made, the condition to be dealt with is far more serious than the ulcer. This is a streptococcus invasion of the blood vessels, with all its attendant pathology, which reduces them to almost a gelatinous state obliging the surgeon to explore quite a distance to find an artery sufficiently healthy to clamp-off.

Out of every seven cases of massive hemorrhages three are fatal according to Aitken,¹⁵ and ten to eleven per cent of the

moderately severe ones.

In those cases, not reacting favorably to medical treatment and massive whole blood transfusions, operative intervention is indicated. If the bleeding continues in a persistent hemorrhage from a posterior duodenal ulcer before a posterior duodenal approach has been made, it is advisable for the operating surgeon to pass his left index finger into the foramen of Winslow and attempt to control the hemorrhage by applying pressure so that he may orient himself. The author has found that by inserting his left index finger through this foramen and extending it under the gastrohepatic omentum above the first portion of the duodenum, and making an incision in the omentum so that a rubber catheter may be passed through by elevating the ends of the catheter caught by a Kelly clamp, the bleeding in this area may be controlled in most cases except in those exceptional ones in which a collateral anastomosis exists with the gastro-epiploica-dextra artery. There is little danger of injuring the common duct since the writer has found it to be a very resistant structure. In experiments on the cadaver his efforts to tear it after suturing in a rubber drainage tube were of no avail. The next step after the hemorrhage has been controlled is to make the posterior duodenal exposure and ligate the cause of the bleeding.

Some authorities have cautioned against transfusions in amounts greater than 250 to 300 c.c. They believed this increases the systolic pressure to such an extent, even up to normal or above, that it

would encourage further bleeding, since tarry stools are sometimes seen even after a blood transfusion of 500 c.c. This is only a temporary condition and the blood added in large amounts is very beneficial to the patient. There has often been some question in the author's mind as to whether blood transfusions in small amounts are really beneficial in serious cases, since the patient is usually disturbed by the preparations for the procedure as is evidenced by the perspiration and the look of anxiety that appears on the face. Small amounts of transfused blood hardly compensate this extremely nervous state. Dr. Unger disproved the before-mentioned theory and further claims that the systolic pressure declines following repeated transfusions of whole blood, never coming up to normal, and is usually 10° to 20° below it.

The following operative procedures were taken from the collected statistics read before the 1934 meeting of the Medical Society of the State of New York. These included four procedures for the treatment of gastric ulcers, and three for the treatment of duodenal ulcers: Gastric ulcers: (1) Excision and pyloroplasty; (2) Gastroenterostomy; (3) Excision and gastroenterostomy; (4) Gastric resection. Duodenal ulcers: (1) Local excision of ulcer and some form of pyloroplasty; (2) Gastroenterostomy; (3) Pylorectomy or partial gastric resection.

The above procedures can be replaced by two operations; viz.: gastrectomy (partial or subtotal) and gastroenterostomy. The author deems it advisable to reserve all cases having an absence of high acidity, open patulous pylorus, and a six-hour retention, especially in patients around middle life or older, for gastroenterostomy. This applies to all cases in which the patient is too old or in such poor condition that he could not withstand a gastrectomy.

It is essential to differentiate between a partial and a sub-total gastrectomy when this treatment is to be considered. For partial gastrectomy, the procedure advocated and practiced by von Haberer in nearly 2,000 cases, has become very popular at the present time. There should be no deviation from this technic since he

has perfected it to high efficiency.

The Hoffmeister-Finsterer type of operation is advised to deal with ulcers higher up in the lesser, or, in the greater curvature or body of the stomach. We are all well-aware that the higher the resection is made, the greater the increase

in the mortality in these cases Certain surgeons adopting the Hoffmeister-Finsterer technic have severely criticized the von Haberer operation which they believe to be ultra-conserva-In their opinion the oxyolytic cells are merely masses in the fundus and body of the stomach, and the pyloric antrum has little to do with the secretion of acid Their objections may be merely theoretical since you Haberer's technic and his modification of Billroth's No 1 operative treatment have been unreservedly accepted on the Continent Von Eiselberg of Vienna, whose operative experience covers over 4,000 gastric cases, favors this operative procedure because of the low percentage of surgical mortality

The local excision surgical procedure has never warranted serious consideration or support, in smuch as it leaves a deformity proportionate to the amount of tissue removed, does nothing to counteract the production of ulcers, and, of more serious import, may be used in known and

intrinsic malignancies

Plastic surgical procedures are of more theoretical rather than actual benefit, as is well-evidenced by the decline in use of

the Horsley plastic teclinic

A serious factor in hematemesis arising from ulcers is the chloride depletion Although, the loss of blood may not be entirely accountable for this condition, nevertheless patients having ulcers who were placed on the Sippy diet for an extended period of time with an intensive alkaline treatment invariably developed an alkalosis which was demonstrated by Hardt and Rivers, ¹⁶ followed by many similar cases in the later literature

Dealing with patients who are already mortally ill, it is not surprising that a mild or even severe alkalosis develops from a combination of alkalosis, due to the Sippy régime, a chloride formation of two gm instead of five gm according to Wildman, and a hemorrhage with intense vomiting. When the acid gastric secretion occurs in normal function, chlorine ions are withdrawn from the blood bearing an

excess base which, combining with CO₂, increases the bicarbonate reserve of the blood. The base chloride balance in the blood is re established by the absorption of chlorides and water from the gastric juice in the ileum and colon. Alkalosis may result from any abnormality which prevents the absorption of the chlorides in the small intestine.

In the ulcer cases, particularly in the presence of an obstruction, there is a loss of gastric juice, which contains hydrochloric acid, due to the vomiting. This depletes the chlorine-ion content of the blood

The normal blood chloride level and blood volume may be maintained for a while by the withdrawal of tissue chloride and fluid which is actually responsible for dehydration When this supply of tissue chloride has been exhausted, a hypochlorema develops which liberates the originally combined chloride base so that it unites with the CO2 which increases the bicarbonate content. Then the urine becomes alkaline because of the markedly diminished chloride excretion and the presence of an excess of base ions. The occurrence of alkalosis in ulcers is evidenced by a low chloride level, a high CO, combining power of the plasma, a marked increase in the nonprotein and urea nitrogen, and an alkaline reaction of the urine

The imperativeness for the recognition of this complication is evident. The benefit to the patient derived from the transfusions will be augmented when this affection is cured by the intravenous injection of five per cent glucose and saline solutions.

In these ulcer cases complicated by obstruction and vomiting, the author firmly believes that many of the fatalities were mainly due to alkalosis and not the hemorrhage

A re emphasis has been recently made by Dr Wright* who states

Preclinical and even severe scurvy is fre quently present but unrecognized in adults Vitamin C is omitted from the diet for various reasons, some of which include poverty, individual dislike for the foods containing vitamin C, faddist diets, and last but of considerable importance, diets im-

^{*} Personal communication to the author by Dr Irving S Wright of New York City

posed by the medical profession in the therapy of gastric and duodenal ulcers, and certain other conditions.

Using a standard capillary fragility test [previously described by Dr. Wright17] it has been made possible to demonstrate that the capillary fragility is definitely increased in a moderate percentage of patients who have been on ulcer or colitis diets deficient in vitamin C. At first, this is present without gross evidence of scurvy but is later accompanied by frank hemorrhage from the gums, intestines, and subcutaneously. Thus such diets have been shown to definitely increase the tendency to hemorrhage.

This syndrome can be quickly cured by the use of crystalline vitamin C (cevitamic acid) either orally or intravenously. The oral dosage should be from 60 to 100 mg., given daily in divided doses. The amount given intravenously is 100 mg. dissolved in 5 c.c. of normal sterile saline solution or distilled water. In a series of acute ulcer and colitis cases, this substance has been well tolerated when taken by mouth. In several instances severe intestinal hemorrhage ascribed to colitis has been entirely cleared up by simply adding this substance to the diet. Therefore it is suggested that cevitamic acid should be included in all diets deficient in vitamin C, particularly, in those conditions frequently associated with oozing or frank hemorrhage. It is candidly admitted that the use of this substance will not affect hemorrhages which are dependent on the erosion of large blood vessels. However it may have a very definite influence on bleeding associated with the changes in the smaller blood vessels.

Conclusions

The writer has the most profound respect for the surgeons who use small blood transfusions rather than the massive ones, preferred by him and recommended by Unger.

No surgeon would consider operating on cases of acute ulcer complicated with massive hemorrhages, which are often primary, when the patient is in actual shock since most of the patients die on

the operating table as a result of the low systolic pressure, hemoglobin, and blood

Cases have been seen in which it is impossible to arrest the hemorrhages by the administration of repeated blood transfusions and the application of glucose and saline solutions. In order to build up these cases to the proper condition for exploratory operation the writer recommends repeated intravenous injections of liver extract from ampules (5 c.c.), the active and anti-anemic principles of which are equivalent to one hundred grams of fresh liver. He also recommends the intravenous injection of glucose solution up to fifty per cent. The liver extract raises the hemoglobin and red blood cell count and both solutions are invaluable for the elimination of the hemorrhage. Further experiments with these injections will be reported.

Upon opening the abdomen in cases of severe bleeding the contents have the appearance of the black hole of Calcutta. If there are no spurters, experienced surgeons emphasize the advisability of not opening the stomach or duodenum for exploration or cauterization but to be content with merely performing a gastroenterostomy. If necessary a secondary resection may be performed later.

In cases of perforating ulcer repaired by simple suture, 35 to 40 per cent return to the surgeon complaining from any one of the following complications: another perforation, perforating ulcer, stenosis due to an ulcer, or a hemorrhaging ulcer condition.

After the bleeding ulcer cases have been properly built up every consultant should advise operative treatment.

If they refuse to follow the instructions of their consultant, entire responsibility for the possible recurrence of hemorshould be rhages placed on shoulders. 28 EAST 72 ST.

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ROENTGEN RAY AND RADIUM THERAPY IN DISEASES OF THE GENITOURINARY TRACT .

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The urologist who attempts a general discussion of radiation therapy must watch his step. It requires very little browsing in the fields of radiological literature to convince the reader who is untrained in roentgen ray technic that he is dealing with a highly complex subject, a subject moreover which is very much in a state of flux. Even though the urologist may be unfamiliar with the details of radiation technic, he should be sufficiently conversant with the results which may be secured by the use of roentgen rays and radium to know when to use these modalities in his own patients. The application of roentgen ray therapy he must leave to the radiologist; when radium is employed, he should have sufficient knowledge of the principles attendant upon its action to be able to use it in a rational and effective manner.

It is as an urologist and not as one who is skilled in the application of radiation therapy that the author is presenting this summary of his experiences with deep

roentgen therapy and radium.

Before proceeding with specific examples of radiation therapy, the author would like to present some general considerations. It is universally admitted, some believe, that there are but very few deepseated malignant growths which can be permanently cured by any one of the methods of roentgen ray therapy now in use. That many malignant growths can be materially affected by present day methods is undoubtedly true, but complete destruction of all cancer cells in a deeply situated tumor would require an amount of radiation which would be destructive of normal tissue in nearby organs. The resistance of various types of cancer cells differs greatly; some are killed by one erythema dose, while others require from eight to ten erythema doses to produce this effect. Among the factors determining radioresistance are, according to Ewing, the adult character of the stroma, the adult character of the epithelial cells, and the substantial blood supply, as exemplified in adenomas and papillomas, the nature of the tumor bed, the presence of exudative inflammation, and acquired resistance. This last factor is present in tumor cells which have been subjected to inadequate dosage. Cancer cells are supposedly most susceptible to radiation during the stage of cell division; because of this factor, Pfahler, following the plan suggested by Kingery, brings the dosage within the tumor to one hundred per cent of an erythema dose within a few days or a week, and maintains the dosage at or near this point during the succeeding period of ten or fourteen days by frequently repeated treatments. Pfahler believes that total radiation should be applied in as short a time as is consistent with the health of the patient.

As to the type of radiation which should be employed, Failla,2 in a summary of extensive experimental work done at the Memorial Hospital in New York City, compares the results obtained from 200 K.V. and 700 K.V. roentgen rays and from gamma radiation and concludes that better clinical results may be expected from the use of very high voltage roentgen rays on two grounds: (1) because of the greater depth doses obtainable, and (2) because of the very probable greater differential action of the shorter wave length, whether direct or indirect, on the tissues of the human body. Very few hospitals have machines of this voltage at present, but reports by Mudd3 in California, where a machine of one million volts has been in use for the past three years, suggest that the use of greater voltage than we now ordinarily employ will give results which are not attainable by the lower voltages. An opposite point of view is held by some excellent radiologists who contend that with a machine of 200 K.V. as much effect can be produced on the deeper tissues as is consistent with their functional integrity.

Three degrees of favorable reaction from deep roentgen therapy are theoretically possible: (1) Complete death of all tumor cells; (2) Diminution of the activity of the growth through setting up fibrosis and cutting off the blood supply; (3) Relief of pain. The application of these results to clinical purposes will be considered later.

The employment of radium in urology has after a long period of experimentation boiled down to its use in interstitial radiation—that is, the implantation of seeds of radon or of needles containing either radon or the element itself directly into the tumor—with the idea of killing all tumor cells at the first application. This method is particularly suitable for the treatment of relatively small, localized cancers. In its development we have derived great help from the excellent work of Doctor Edith Quimby4.5 of the Memorial Hospital, whose carefully worked out tables show the actual amount of radiation in terms of the erythema dose delivered by various forms, strengths, and positions of seeds and needles. From Quimby we learn that twenty erythema doses have a necrotizing effect; by consulting her tables and following the prescribed dosage, we can deliver within an accessible tumor an amount of radiation which can be gauged with approximate accuracy. According to Francis Carter Wood,6 squamous cell epithelioma, which is relatively radioresistant, should be given from five to ten erythema doses.

The effect of the gamma rays applied at a distance from the tumor corresponds closely with the effect of filtered roentgen rays (Wood), as has been proved upon the eggs of the fruit fly, but as Wood points out, it is much less costly to radiate large areas with roentgen rays.

He says:

The chief advantage of radium under present conditions lies in our ability to insert the radiating material into a tumor and thus give enormous doses locally, doses which could not be applied with roentgen rays which have to pass through patients' skin.

Knowing that positive cures of deepseated malignant growths by means of radiation are rare, we should, as Wood advises, select only the inoperable growths for radiation therapy. Whenever possible, the nature of the tumor should be determined by biopsy before treatment is begun. With these general considerations in mind, let us take up the application of radiation therapy in urology.

Radiation of kidney tumors, especially those of the embryonal type found in children, has recently received considerable attention. Waters,7 Hyman,8 Randall, Dean and Pack, and Pohle and Ritchie¹⁰ have reported cases within the last three years treated in this way. There seems to be no question that radiation will reduce the size of these tumors, thereby enabling the surgeon to remove some tumors which might otherwise have been inoperable. Nephrectomy should be done within six weeks after radiation, as regrowth of the tumor is likely to occur. The ultimate results however have been little better than those obtained in cases that were treated by surgery alone. In the six cases reported by Pohle and Ritchie, for example, five died of metastases. In the one that is still alive, three years and eight months after being first treated, two attempts at nephrectomy were unsuccessful. Waters, in sixteen cases, found that 93.4 per cent of the cortical renal tumors were radiosen-The epithelial carcinomas of the renal pelvis and the malignant papillary cystadenomas were radioresistant.

There would seem to be little justification for attempting radiation of renal tumors unless the tumor is so large that its operability is doubtful. Certainly the development of metastases has not been decreased by radiation. If extension of the growth along the renal pedicle or to adjacent structures has occurred, it will not be removed by radiation. The sole result of deep therapy appears to be the shrinkage of the tumor itself, due perhaps in part to necrosis of the more sensitive cells. Cancer cells apparently undamaged by radiation have been found in the tumors after their removal.

The value of postoperative irradiation is also questionable; it implies a faith in the efficacy of deep therapy which is not borne out by the facts. If the surgeon has been unable to remove the entire tumor, he is justified in requesting thorough irradiation of the operative area in the hope of setting up a fibrosis in and about the malignant focus, but he should not delude himself with the expectation that scattered cancer cells will be destroyed. If radia-

tion had no harmful effects, its employment after operation might well be made routine, but unfortunately this is not the case. The subjection of a patient recently operated upon to a stiff course of deep therapy may make him miserable for one or two of the few months of life which remain to him.

The patients with frankly inoperable renal tumors are usually in such poor condition when first seen that adequate irradiation is out of the question. If metastases other than solitary ones can be demonstrated, the value of radiation is doubtful. One series of treatments may be tried, in case the tumor should prove

to be highly radiosensitive

In regard to the treatment of bladder cancer, urologists hold widely divergent ideas. It is generally conceded that external radiation is of little value As Dean and Quimby¹¹ point out, with erythema doses applied through four portals, the total dosage secured in the bladder area is but 1.2 of an erythema dose, whereas the resistant type of epithelial tumor encountered in the bladder requires from five to ten crythema doses for its destruction. The majority of urological surgeons would agree, I believe, that where resection of that portion of the bladder which bears the tumor can be done without interference with the ureters, it is the method of choice This is not the opinion of the group at the Memorial Hospital in New York City, who have consistently hered to the plan of treating all bladder tumors by interstitial radiation Their results give strong support to the correctness of their position. With a mortality of only 37 per cent in one hundred and six consecutive operations, they have obtained apparent destruction of the growth for a period of three years between 43 and 55 per cent of patients with papillary bladder, cancers, and between 278 and 318 per cent of patients with infiltrating bladder cancers These results are at least as good as those reported by surgeons employing other methods, and show a lower operative mortality

Dean and Quimby¹¹ insist upon the desirability of employing sufficient interstitial radiation to give between twenty and thirty threshold erythema doses not only within the tumor, but

within a zone extending one centimeter beyond the demonstrable horder of the growth To secure this result, they do not hesitate to use as many as fifty seeds, yielding thirteen thousand millicurie hours. According to Quimby, twenty crythenri doses has a necrotizing effect, it would seem as if such large doses would necessarily produce an extensive slough which would require months or

even years to heal In the author's experience, the formation of extensive radium slough in the bladder, especially about the bladder neck, has been productive of long standing discomfort and strangury. In a series of bladder tumors consisting of forty-one papillary and fifty-seven infiltrating growths, thirty-two papillary growths were treated by surgery or electrocoagulation with seventy eight per cent free from growth (not all hid gone for three years however) and nine by interstitual radiation with eighty-nine per cent free from growth, of the fiftyseven infiltrating growths, thirty were treated by interstitial radiation twenty-three per cent apparently con trolled, four by electrocogulation with none controlled, thirteen by resection with forty-six per cent controlled, ten by total cystectomy with thirty per cent controlled

The author finds that he has been tending more and more toward the implantation of seeds through the cysto scope in the smaller papillary tumors and in large tumors when the patient's general condition contraindicated operation The results in a number of cases have been surprisingly good. The author is still hesitant about using this method in multiple tumors or in large tumors situated on the trigone or close to the ureteral orifices The addition of an extensive radium slough to a bladder already septic in a patient reduced urmary infection, has proved to be a lethal measure in a good many instances In such cases it may prove feasible to destroy most of the tumor by electrocoagulation through the open bladder, to institute suprapubic drainage, and if the patient's general condition improved, reopen the bladder and implant radium into the base of the tumor

In my opinion, radium has very definite value in the management of bladder tumor; the surgeon who operates upon these cases should decide before operation upon the best method of attack, and should have at hand enough radium to meet the needs of the situation in case he is unable to resect the growth satisfactorily. The implantation of radium seeds along the line of suture following resection of the bladder wall is not desirable, as the radiation is likely to interfere with the healing of the bladder incision.

Cancer of the prostate is another bone of contention among urologists, some of whom are convinced of the value of interstitial radiation, while others disregard this method altogether. In estimating the effects of any type of treatment in this disease, we must bear in mind the fact that in the great majority of cases, its progress is surprisingly slow. Patients have been known to live for ten years after the diagnosis has been made without any treatment whatever. These cases are of course exceptional, but it is not unusual for patients to show very little appreciable change within a period of two or three years. At the Tumor clinic at the Massachusetts General and Huntington hospitals we have a number of these cases under roentgen treatment. An occasional case will show decrease in the size of the gland, but in general I would say that we had seen little effect upon the prostate itself following radiation. Metastases develop while the patient is under active treatment, but there can be no doubt as to the value of deep roentgen therapy in keeping the patient comfortable so far as the pain from metastases is concerned. Leddy and Gianturco, in a paper on this subject from the Mayo Clinic, state that the relief of pain depends on the direct destructive action of the roentgen rays on cancer cells which press on to irritate the pelvic nerves. We doubt whether this is true, as relief is often experienced within twenty-four hours. In forty cases so treated, they secured complete relief of pain in three, marked but incomplete relief in twenty-one, no relief in sixteen. Relief of pain can often be secured by what we term a "palliative" dose (about 800 r.) which is definitely less than the dose that would be given in the attempt to control the disease (2400 r.).

The author has employed interstitial radiation in somewhat over forty cases of

prostatic cancer. In about twenty per cent its use was followed by a diminution in the size of the prostate, and an apparent set-back to the activity of the growth. The patients to whom 4000-5000 millicurie hours of radiation were given suffered extreme pain; a number of them died within a few months and in every autopsied case areas of active cancer cells could be found. The cases that did best were those who received a smaller dose -around two thousand millicurie hours. One patient was given this amount of radiation through the open perineum and, after suffering severely for six months, appeared to be greatly improved. His prostate became small and soft. He died of a coronary occlusion about two years after operation. Unfortunately no autopsy was obtained.

Generally speaking, the author's experience with the use of radium in cancer of the prostate has not been sufficiently encouraging to induce him to use it except in the occasional case. In early cases he believes total prostatectomy to be the best treatment; in more advanced cases, relief of obstruction by transure-thral resection and control of pain by deep roentgen therapy.

Simple orchidectomy in tumor of the testicle has been shown to bring about a cure in but five per cent of cases. The radical operation of Chevassu-Hinman is successful in seventeen per cent. In contradistinction to these results Dean¹⁸ reports the following: of sixteen patients who were classified as operable when first seen, eighty-six per cent have no signs of the disease; of ninety-seven patients classified as inoperable when first seen because of the presence of inrecurrences, metastases, operable both, twenty-nine per cent have no sign of the disease. In this series Dean has set no time limit by which to estimate the value of his treatment, so it is probable that the final results would not appear so favorable, but even so, he and his coworkers have definitely established the value of irradiation in the treatment of testicular tumors. The author is unable to see the logic in radiating the testicle before removing it, as they propose, for orchidectomy can be performed without risk of spreading cancer cells if the spermatic cord is exposed and clamped before the testis is removed.

The knowledge gained by the behavior of the tumor when radiated preoperatively seems to me to be offset by the information secured from pathological examination. By the latter method we can recognize unusual types of tumor, such as the testicular manifestations of multiple myeloma. The diagnosis of a testicular tumor may be wrong; it is undesirable to submit to extensive radiation a patient whose condition does not call for this treatment.

Dresser, Mintz, and the author have recently collected from several hospitals in Boston and from the Cancer Hospital at Pondville a series of seventy-five testicular tumors. Many of these patients were sent to the hospital for radiation only after metastases had developed following orchidectomy. The series contains therefore a larger percentage with poor prognosis than one would find in an unselected series of cases. In spite of that, fourteen cases or eighteen per cent were alive and apparently well three or more years after orchidectomy. Six of these were embryonal carcinomas, three were mixed tumors, two teratoid tumors, one a teratoma, one a leiomyoma, and one a carcinoma Two had been given an adequate amount of radiation, two a fair amount, six an amount which seemed insufficient, and four no radiation at all. Twenty-nine other cases had been given what appeared to be sufficient or fair amount of radiation, but of these at least twenty-one are dead. There is a great difference in the response of these tumors to radiation; some abdominal masses will show no decrease in size while others will almost melt away. Often they develop again as rapidly as they disappeared We have had a few instances where metastatic deposits in the abdomen and supraclavicular region have disappeared after radiation and have not developed again during several years of observation As a rule, when multiple metastases have developed the prognosis is ultimately fatal. The time to radiate is immediately after the primary tumor is removed. A course of radiation amounting to at least 1600 r. to each of four portals should be given over both upper and lower abdomen and through corresponding portals over the back.

It is desirable that a standard method of radiation should be developed; when this is done, it will be possible to estimate more accurately the results which we may expect from deep therapy.

Conclusion

It is the author's opinion that roentgen ray therapy is of definite value in changing the status of some renal tumors from that of inoperability to operability; that in cases of solitary metastases not amenable to surgery, radiation should be given a thorough trial

Radiation is of value as a palliative measure and for relief of pain in cancer of the prostate, while in tumor of the testicle it is of so much value that the failure to employ it after orchidectomy constitutes a serious error of omission. It is worth little in tumor of the bladder, whereas in this disease interstitial radiation is the best method to employ in at least fifty per cent of all cases. Interstitial radiation in cancer of the prostate has in my hands been disappointing, although in the occasional case it has proored to be effective in retarding the progress of the disease.

Unless some new method of applying radioactive substances is discovered, it would seem that our knowledge of radium technic has about reached the saturation point. As regards roentgen ray therapy, it is not at all unlikely that future developments will so far transcend those of the present that the scope of its usefulness will extend far beyond the limits with which we are familiar today.

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FEVER THERAPY IN SOME GENERALIZED DERMATOSES

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The treatment of skin diseases with foreign proteins or other nonspecific means is not new. An extensive literature exists on the subject and it is not our intention to make a thorough review of this. Various means have been employed to produce the desired effects. Chief among them are bacterial vaccines, turpentine, milk, peptone, autohemotherapy and autoserotherapy. Autohemotherapy and autoserotherapy were introduced by Luithlen¹ in 1913, bacterial vaccines by Engman and McGarry,² milk by Schmidt and Saxle³ in 1916, and turpentine by Klingmuller⁴ in 1918.

Excellent reviews have been written in English by Wright⁵ and by Low.⁶ Wright concluded that nonspecific therapy was of definite value in certain skin diseases; that autohemotherapy was of value in psoriasis in conjunction with local therapy and was also of help in chronic urticaria; that milk preparations were of immediate value in furunculosis and carbunculosis and could effectively relieve itching of idiopathic pruritus, and pruritus accompanying a dermatosis; that milk injections were disappointing in eczema, acne, and psoriasis; that vaccine therapy was of some value in psoriasis; and that turpentine was of value in infections caused by trichophyton and certain bacteria.

Low thought that the form of protein used was unimportant and that any type might be used. He listed the diseases treated and the results obtained by himself and others. Urticaria, psoriasis, chronic eczema, contact and light dermatitis were treated with varying results; neurodermatitis was stubborn and did not react well; ulcus molle was treated by all methods with good results. A limited number of cases of the following diseases were treated with nonspecific therapy: erythema multiforme, purpura, scurvy, prurigo, zoster, herpes simplex, parapsoriasis, impetigo, erysipeloid, acne, actinomycosis, tinea versicolor, pityriasis rosea, alopecia areata, leprosy, aplithous stomatitis, Darier's disease, warts, and mycosis fungoides. Low also reported seven cases of exfoliative dermatitis, in six of which he obtained no results; the seventh was a case of exfoliative dermatitis on a psoriatic base in which the dermatitis disappeared but the psoriasis was left unaffected. He also cited a case treated by Engman and Mc-Garry which resulted in a cure.

In our series the stock New York City Board of Health Bacillus typhosus vaccine was used. This contains one billion bacilli per c.c. In each case 0.1 c.c. of the vaccine was given intravenously as the first dose and was increased gradually until a maximum of .4 to 1.3 c.c. was reached. The interval of injection varied from two to seven days. The onset of the reaction began with a chill or sensation of chilliness about twenty to thirty minutes after the injection and lasted TABLE I.—RESULTS FROM TREATMENT WITH

TYPHOID VACCINES

		No. of	•
		injec-	
Diagnosis	Pt.	tions	Results
Generalized eczema		5	Complete resolution - re- currence.
or dermatitis	B. P.	10	Complete resolution — re- currence.
Generalized eczema	W.S.	3	No improvement.
Generalized eczema	М. К.	8	Marked improvement —re- currence for limited ex- tent.
Generalized eczema	I.H.	7	Complete resolution — re- currence.
Generalized eczema	• • • •	7	Complete resolution—slight itching left.
Generalized eczema	E. S.	8	Marked improvement.
Generalized eczema		2	Marked improvement.
Generalized infectious eczematoid dermatitis	A.S.	5 (in	
		1934)	Almost complete resolution (patch between toes left).
		7 (in	••
G !! 1 ! f d		1935)	Almost complete resolution (patch between toes left).
Generalized infectious			
eczematoid dermati- tis	М. А.	8	(Body lesions) almost com- plete resolution (scalp lesions) very slight im- ment.
Dermatitis exfoliativa. Dermatitis exfoliativa	A.B.	6	No improvement.
and psoriasis	J. C.	4	Complete resolution of der- matitis and underlying psoriasis.
Generalized psoriasis	J.B.	4	No improvement.
Erythema multiforme (generalized and	•••		
fixed)	M.S.	4	Marked improvement of fixed lesions. New bullae occurred.

A summary of the twelve cases treated gave the following results: Complete resolution three, improvement six, no improvement three.

from twenty to sixty minutes. The duration of the fever was five to six hours and ranged from a slight elevation above normal to 104 degrees F The highest temperature was observed after the first or second treatment and was usually lower following subsequent injections even with increased dosige. The symp toms accompanying the fever consisted of mild headache, drowsmess, loss of appetite for about twenty four hours and mild thirst Several unusual reactions occurred In one case the patient failed to have the usual chill a half hour after the injection but instead felt slightly chilly and suffered from generalized joint pains, nausea and vomiting for twentyfour hours and swelling of the legs, lips, and mouth In another case the patient had precordial and lumbar pains as well as a fever of 1026 degrees F three days after the injection. The effect on the skin lesions was noted usually after the first or second injection. If there was no iniprovement by this time, none was seen after subsequent injections

Summary

Twelve cases of generalized dermatoses were treated intravenously with typhoid vaccine, three showing complete resolution, six improvement, and three no improvement

From this small series one can state that in a resistant generalized derinatosis intravenous foreign protein therapy (typhoid vaccine) may prove of great value. It is not possible to predict which cases will be benefited.

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AN ASPIRATING SYRINGE WITH SIDE-COCK ADAPTER

For Aspiration of the Knee Joint

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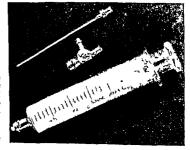
In aspirating a knee joint it is annoying to detach the syringe from the needle empty it and replace it, especially when the joint contains more than twenty cubic centimeters of fluid. The author has never seen an infection follow this routine but it does not give a clean cut technic in aspiration.

The author wishes to present a syringe (Tig 1) for ispiration of the knee joint which allows the emptying of the filled syringe through a side cock in an adapter fitted to the syringe. The idea is surely not new but this syringe has been so satisfactory in the fifty or more cases in which it was used that the author does not hesitate to recommend it. It is especially useful in those joints which contain one hundred or more cubic centimeters of fluid.

When the side cock is placed parallel to the barrel of the syringe fluid is admitted into the syringe from the joint when the cock is at right angle to the barrel and overhes the exit tibe in the adapter, the fluid contained within the syringe is expelled In gonorcheal arthritis with effusion it is desirable to inject air into the joint This can be done with the same syringe

after the withdrawal of the effusion Air is drawn into the syringe when the side-cock is priallel to the exit tube in the adapter it is injected into the joint when the cock is on a line with the barrel of the syringe

This syringe is a simple and handy adaptation of the ordinary aspirating syringe. It makes aspiration of the knee joint an easier and simpler procedure both for surgeon and patient 114 East 54 St.



ELUSIVE ULCER OF THE BLADDER With Special Reference to Its Treatment With Phenol

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Elusive ulcer of the bladder is a chronic submucous inflammation occurring in the dome or vertex of the bladder. This lesion was first described by Hunner in 1914. Its elusive character and the fact that in many instances no abnormal elements are found in the urine, has often caused the patient, so afflicted, to be classified as a neurasthenic. When cystocele, fibroids, or other pelvic lesions exist, these are often subjected to operation with the assurance that their elimination will relieve the symptoms.

The etiology of the ulcer lacks specificity but focal infection seems to play an important part. Apical tooth abscesses are often of importance, and tonsils and sinuses may be harboring the infection which causes a persistence of the bladder lesion. Besides focal infection, submucous cystitis may be the result of chronic urinary infection. The author has seen two typical elusive ulcers associated with tuberculosis of the kidney. Hunner¹ reported a similar experience, and the fact that the bladder lesion is not tuberculous was proved by histologic examination in Hunner's cases. Chronic renal infection of other types may also be followed by definite areas of submucous infection located in the vertex of the bladder after the rest of the bladder has resumed a normal appearance.

The symptoms of Hunner ulcer are very suggestive if not pathonomic. If the condition is kept in mind the diagnoses may often be made by history alone. Chronicity of symptoms is at present a constant factor, but if earlier diagnosis are made this will ultimately be less conspicuous. In the early cases which the author has seen, frequent urination is the most outstanding complaint, the next being suprapubic pain when the bladder is distended. As the condition progresses, spasm, burning on urination, and pain following urination appear. In advanced cases with scarred and contracted bladders the frequency and pain will be so marked as to confine the patient to her room. Bleeding may be noted and was given as a presenting symptom in one of the author's cases. However its existence is often only discovered by questioning the patient and is found to occur after the bladder has been somewhat over distended. It is due to cracking of the diseased mucosa.

The physical signs are few but distinct. The urine in uncomplicated cases may contain no abnormal elements and the culture be negative. The author recently saw a patient whose urine contained no cells and yet frequency was so marked as to allow practically no sleep.

Palpation of the bladder by vaginal examination will often locate a tender area which the patient will identify as the source of her pain. Cystoscopic examination does not always reveal the ulcer. With the electrically lighted type of cystoscope and fluid medium the lesion may, by brilliant illumination be revealed as a linear superficial ulcer with a surrounding granular zone, the whole area being usually one to two cm. in diameter. Surrounding this is seen a pale elevated zone several centimeters in diameter which represents an area of edema. Those who have become proficient with the Kelly cystoscope and the knee-chest position will, when examining and treating women, find this an invaluable aid. Through this instrument one looks almost directly at the most frequent site of the ulcer and the distention with air often causes slight bleeding which will disclose the lesion.

If the area of submucous cystitis is at first not seen its existence may be suspected by a more or less characteristic appearance of the bladder wall. In such cases the mucosa is pale-white and traversed by markedly engorged and tortuous vessels. The mucosa also has a hard appearance and in one case on first examination several small areas of hemorrhage occurred. Frequently, as one inspects the bladder wall for ulcer, an area of pale redness will be seen. Touch-

ing this with an applicator of cotton, will often cause the patient to exclaim with pain, and it will be noted that even the lightest touch has caused the thin diseased mucosa to bleed; this is the ulcer.

At times more than one area is located. In one of my cases, after a long search, a lesion in the right half of the dome of the bladder was discovered. This was treated with marked, but not complete relief. On looking for more trouble another area at the junction of the retropubic region and the vertex was found. The treatment of this was followed by prompt and complete relief.

In looking for Hunner ulcers it is important to remember that they appear more frequently in the vertex or well up in the dome of the bladder. In Keene's twenty cases he did not find one at the trigone. In one of my cases, an ulcer on the lateral wall a short distance from the left border of the trigone was found.

The diagnosis of this distressing condition becomes the duty of each urologist and gynecologist. From the number of these patients subjected to operation, it is evident that certain facts should be emphasized. First: It is definitely found from experience that when a patient complains of any of the symptoms usually due to urinary disease, such as, frequency of urination, or pain before, during or after the act, in practically every case the lesion responsible for these symptoms will be found within the urinary tract. This is an axiom, the exceptions to which only prove the rule. Too many women have been operated upon for slight cystocele or a moderate sized myoma of the uterus because these conditions are assumed to be the cause of frequency of urination or pressure upon the bladder. Second: It should also be noted that several distinct lesions of the urinary tract, such as ureteral stricture, trigonitis. chronic urethritis, and elusive ulcer usually do not produce abnormal elements in the urine. If these facts are observed and the existence of elusive ulcer kept in mind we can hope for the diagnosis of this condition before the patient has suffered so long and perhaps been subjected to several unnecessary operations.

The treatment of this condition has not been satisfactory. Hunner, Kretchmer,

Frontz, Keene, and others for some time resected the ulcer bearing wall of the bladder with rather unsatisfactory results. Recurrences were fairly frequent and in some instances a second operation was performed. Kretchmer and Furniss were among the first to report favorable results with the use of high frequency fulguration. This procedure is still used and will give long periods of relief. It, however, usually requires an anesthetic and promises no permanency of cure. Bumpus has had success with hydraulic distention under general anesthesia.

When ureteral stricture is present, many of the cases are relieved by dilatation of the stricture, with or without the application of silver nitrate to the ulcer. Regardless of local treatment, infection either focal or in any other portion of the urinary tract must be eliminated. One must also keep in mind the fact that urethrotrigonitis is a frequent accompaniment of elusive ulcer and will be confusing in the treatment as well as in the diagnosis.

Another important feature in the treatment of Hunner ulcer should be kept in mind. A chronic bladder lesion is one of the most annoying conditions a patient may have. The irritation and constant desire to urinate often prevents the patient from leading any degree of normal life, and the sleeplessness and lack of rest, particularly, affect nervous and mental stability. For this reason the patient should receive a careful general study. When a patient has been harassed in this manner for years and has completely lost all confidence in recovery, it is well to put her in hospital for a period of from one to three weeks. Here, sufficient sedative should be given to insure rest and sleep. The intake of fluid should be adjusted to diminish the night output of urine. The usual order to force water often causes considerable unnecessary distress. Some medication such as santal oil or tincture of hyoscyamus are helpful. Local treatment may now be tolerated and a wise nurse can each day irrigate and gradually distend the bladder with hot boric-acid solution, which may be followed by the instillation of some soothing antiseptic, such as one ounce of gomenol or one to thirty argentide. After eight to ten days of this treatment, the

general cystitis, often accompanying the chronic ulcer, will be improved and local treatment may be directed at the lesion.

Since local treatment of this condition has been, up to date, rather uncertain and unsatisfactory, the author recently2 described a simple and painless method which can be easily carried out in the office. It consists in the application of concentrated phenol applied to the ulcer through the Kelly cystoscope. A local anesthetic is instilled into the bladder and applied to the urethra for ten to fifteen minutes. The bladder is then emptied by catheter, the patient placed in correct knee-chest posture, the vaginal orifice opened to allow air to enter the vagina, and a Kelly cystoscope introduced into the bladder. By means of a head mirror and reflected light, the lesion is located and studied, and, after aspirating all urine from the bladder vertex, is thoroughly swabbed with pure phenol, followed in a few seconds by an alcohol swab. After the ulcer is thoroughly painted, the patient remains in the kneechest posture, with the cystoscope in place, for a few seconds. As the cystoscope is withdrawn, if the trigone and urethra are inflamed they are painted with ten and five per cent silver nitrate respectively. The air is then allowed to escape and the patient to go about as usual. There is often some increased discomfort for a few days about which the patient should be warned. The lesion is then inspected in about two weeks and may or may not require more treatment. The application of phenol should be limited to the ulcer and not applied to too large an area. Long, severe reaction may follow too free use of this solution.

Twelve cases have now been treated by this method. These can be divided into three distinct groups. In group I, there are seven patients who have had a primary ulcer for from eight months to twenty years, the average duration being eight years. Of these, three had had at least one pelvic operation, with no relief of bladder symptoms, but one of these three had developed carcinoma of the uterine body for which the operation was performed. Five had had no renal infection and one had some unknown bacterium cultured from the left kidney, but no pus was found. Catheterized specimens of

urine in five of these cases contained a rare or no pus cell, red cells were a frequent finding. After treatment, pus is generally found in the urine.

Five of this group are quite well after one to four applications of phenol and have remained so without further treatment for from four months to two years.

The sixth case is one who had had symptoms for twelve years. She had sought relief in many different cities and large clinics. In the summer of 1934, she consulted Dr. Hunner who found an ulcer. Because the patient lived near Syracuse, she was referred to me for treatment on January 26, 1935. She was having a great deal of distress. The urine contained pus and the bladder was generally red and contracted. In the right side of the dome of the bladder a red, bleeding, granular area two cm. in diameter was found. In the center of this was a greyish necrotic elevated area about ½ cm. in diameter. Phenol was applied with an interval of four weeks with very little success. The patient was then put at rest for two weeks under sedatives and gradual bladder distention with hot boric solution. Her symptoms are less than ever before, the bladder is generally normal in appearance except a granular area at the site of the ulcer. She will return soon for further treatment after again having sources of focal infection investigated. The author shall inspect the bladder and apply phenol if necessary. As yet this patient has not had a successful result.

The seventh case is a woman aged thirtysix who was seen on April 23, 1934. She had had frequent attacks of bladder irritation for ten years. Local application to the urethra and trigone had given temporary relief from the burning on urination but the frequency, pelvic pain, and a bearing down feeling continued. She was sent to the hospital for vaginal repair and uterine suspension. Cystoscopic examination made on the above date disclosed an elusive ulcer on the sacral aspect of the bladder cavity. This was carefully painted with phenol fol-lowed by alcohol. The patient was seen on May 7 two weeks after this treatment and only a faint pink area was seen at the site of the ulcer and there was no pelvic pain of any kind. It is of course too soon to predict a cure.

In group II are three cases in which typical areas of interstitial or submucous cystitis were complicated by or followed chronic renal infection.

One had an area typical of elusive ulcer in the dome of the bladder following nephrectomy for tuberculous kidney. There was no evidence of tuberculosis about the trigone or urcteral orifices. All usual treatment failed and pure phenol application was decided upon. Relief was prompt and has continued for three years. Since no tissue sections were made of this lesion one might suspect that it was tuberculous in nature but pig innoculations were negative. The location of the lesion was typical of ulcer and Hunner has proven by microscopic study of removed tissue that nontuberculous submucous cystiis (Elusive ulcer) may accompany tuberculosis of the kidney.

The second case of this group is somewhat similar. She still has a tuberculous right kidney but had a typical clusive ulcer, which when treated with phenol has left the patient with a perfectly normal bladder and completely symptom-free for one year. She is so comfortable that she has not been able to make up her mind to have her diseased kidney removed. This patient had had a diagnosis of ulcer in another city several years before and had had a long period of relief from fulguration.

The third case of this group presents several points of interest. She was thirty nine years old and had had an infection of the left kidney since an attack of scarlet fever at the age of eleven. For ten years the patient had come to me at infrequent intervals for treatment which consisted of dilating the left ureter and irrigating the kidney. The bladder was usually found to be extremely inflamed. She could not decide upon nephrectomy when this was finally advised. In 1931 she developed a generalized arthritis. After careful study, left nephrectomy was done. The result was astonishing: her arthritis promptly improved but there was still frequency and suprapubic pain, A small area of submucous cystitis was located, phenol applied and the condition greatly improved. It seems reasonable to assume that this ulcer was the result of a long continued urinary infection.

In a third group are two patients who present features not so evident as in the other groups.

The first is a woman aged twenty-nine who was seen January 2, 1935. The appendix and a cyst of the right ovary were removed in 1928. In the lower abdomen she had, for two years, noted a bearing down pain which radiates to the region where her appendix was removed. There had been no burning or pain on urinating but frequency was noted. This had begun about ten years ago. Pelvic examination disclosed normal organs except that no right

ovary was felt. The bladder however was tender. When the bladder distended, the patient exclaimed that this produced a feeling like her old pain. No ulcer was seen but a slightly reddened area was found at the apex of the dome of the bladder. This was not seriously considered. The patient returned March 2, 1935, and this area was again noted but this time seemed more definite. It was gently touched with an applicator. Immediately the patient stated it was the location of her pain. Phenol was applied and when last seen, April 8, the pain had completely disappeared. This patient presents an ulcer and yet had had no definite symptoms pointing to the urinary tract.

The second case in this group, a young woman thirty years old, seen April 27, 1935, had had for three years a most annoying frequency. Nocturia was so marked as to allow very little sleep. There was no burning or pain at any time and the urine was clear microscopically. On examination there was some stricture of the urethra and the bladder showed a pale hard looking mucosa with branching tortuous vessels. No ulcer was seen. A diagnosis was made of chronic urethritis and urethral stricture. The dilatation of the urethra gave considerable relief. On May 1 a definite ulcer was found and swabbed with phenol. On May 11 the patient stated that she was almost completely relieved. It is evident that it is too soon to say whether or not she is well; the author simply adds her record to his reports to show the symptoms presented by an early case.

Summary

Twelve cases of elusive ulcer treated with concentrated phenol are presented. Eight of these have remained symptom-free and have no evidence of ulcer in their bladders for from four months to two years after treatment. Three, although quite well at present, are too recent to classify as cures. One with a very extensive lesion, although rapidly improving, is still not without definite bladder distress.

Conclusions

1. Chronic submucous cystitis (elusive ulcer of Hunner) is a commonly over-looked lesion of the bladder.

 The chief symptoms presented are, besides burning and pain during urination, marked frequency of urination and suprapubic pain when the bladder is distended.

- 3. The urine from a case of uncomplicated ulcer may contain no abnormal elements.
- 4. For the above reasons, many women with this condition are classified as neurotic, or are subjected to unnecessary operations.
- 5. Treatment is, in general, unsatisfactory. Focal and complicating urinary infections should be eliminated. Rest and sedatives may be necessary in cases where the symptoms have been severe for a long time.
- 6. Local treatment is directed at the destruction of the ulcer and has consisted of resection or fulguration.
- 7. In women, the application of concentrated phenol thru the Kelly cystoscope, is simple and, so far, has proved an efficient treatment.

505 MEDICAL ARTS BLDG.

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CASE REPORT

COMPLETE HORNIFICATION OF THE MUCOSA OF THE RENAL PELVIS ASSOCIATED WITH AN UNUSUALLY LARGE CALCULUS

M. M. MELICOW, M.D., New York City

From the Squier Urological Clinic, Columbia University Medical School

The role of chronic irritation as a cancerigenic factor is well-known. Why it is associated in one instance with the development of a neoplasm, and in another with hyperplasia or metaplasia only, is not known. Neither can we affirm at present whether there is in the life history of a new growth a transition through stages of hyperplasia, metaplasia, and finally neoplasia. Thus it is important to record the circumstances attendant upon changes in the character of a tissue. For this reason the author is reporting the following case: It is an instance of metaplasia of the renal pelvic mucosa into skin with hornification. An unusually large pelvic calculus, which formed following an injury to the kidney, acted as the chronic irritant.

W.S., age twenty-eight, was admitted to the Squier Urological Clinic on December 12, 1934, complaining of repeated attacks of dull pain in the left costovertebral angle and hematuria. Seven years ago he was kicked during a football game and had had gross hematuria. This recurred after any strenuous exertion. For two weeks prior to admission the pain radiated to the testis and there was present slight burning on urination. He had lost twenty-five pounds in the last year.

The general examination was negative, except for a mass in the left upper quadrant of the abdomen which was the size of a grapefruit and moved with respiration.

The urine was acid, specific gravity 1.018, albumen three plus; there was no dextrose. Microscopic examination showed occasional red blood cells. Roentgenograms of the abdomen revealed the right kidney, normal in size, shape, and position. The outline of the left was not seen. However, in the region of this kidney a large, dense elliptical shadow, measuring 12.5 x 7.5 cms., was noted. The upper border of the shadow was opposite the transverse process of the second lumbar vertebra and the lower, .5 cm. above the crest of the ilium. Within this shadow a similarly shaped shadow of slightly increased density suggested the appearance of The psoas large laminated calculus. shadows were normal. The liver shadow was smooth and that of the spleen enlarged. The transverse arches of the fourth and fifth sacral segments were incompletely fused. Roentgenograms of the heart, aorta, and diaphragm were negative.

The patient was cystoscoped and the pyelograms showed the calyces, pelvis of the right kidney, and the major portion of the right ureter well-outlined and appearing normal. Again no outline of the left kidney was seen; in its place there appeared the large shadow already described. The left ureter was normal for a distance of 2.5 cm., but as it reached the shadow of the calculus it narrowed and then appeared dilated and tortuous.

The urine from the right kidney was cloudy, acid, and contained occasional red and white blood cells, and that from the left was similar, but contained many white blood cells.

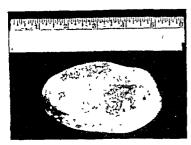


Fig. 1. Large oval pelvic calculus removed from sac-like kidney.

The patient was operated on December 17 by Dr. Squier. The kidney was freed and delivered through a left lumbar incision. It was enlarged and soft and contained a calculus within the pelvis. The stone was large, smooth, and oval A complete nephrectomy was done with the usual drainage. patient was discharged on January 6, 1935 with the postoperative wound healed.

Pathologic report: Gross-The calculus (Fig. 1) was very large, measuring 12 x 7 x 5.5 cms., and weighed 235 grams. One surface was jagged due to prominence, caused by deposits of elongated translucent The other surface was relatively smooth. The kidney was sac-like with a wall thickness of about .4 cm.

Microscopic-Section through the kidney showed multiple hemorrhages, areas of lymphatic infiltration, and a marked relative

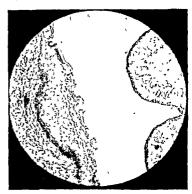


Fig. 2. Microscopic section of pelvic mucosa showing metaplasia (squamous cell formation and keratinization).

increase in stroma. There was considerable cloudy swelling of the few remaining tubules, and hemorrhage and fibrosis of some of the glomeruli. The striking feature was the presence of a metaplastic epithelium in the lining layers of the pelvis and adjoining ureter. There was a change to the squamous type of cell with hornification. The tissue resembled skin. (Fig. 2.)

Diagnosis: Nephrolithiasis with atrophy and fibrosis of kidney, squamous cell metaplasia, and keratinization of pelvic and ureteral mucosae.

911 PARK AVE.

NEISSERIAN MEDICAL SOCIETY MEETING

The American Niesserian Medical Society will hold its second annual meeting on May 18, in the Hotel Statler, Boston. All interested are cordially invited. The program will include:

10 00 AM. The "Flow of the Seed" in Antiquity, M. L. Brodney, M.D., Boston

'The Technique of Isolating the Gonococcus and of Determining the Thermal Death Time,"

and of Determining the Include Death Time, C. M. Carpenter, M.D., Rochester. "The Application of the Thermal Death Time Principle to the Treatment of Gonococcal In-fection by Fever Therapy," S. L. Warren, M.D., Rochester.

The papers of Drs Carpenter and Warren will be illustrated by moving pictures in colors Business meeting.

2 00 P.M. Presidential Address.

The Twelfth Scientific Session of the American Heart Association will be held on Tuesday, May 12, from 9:30 to 5:30 P.M.

Hans Zinsser, M.D. (guest speaker): "To What Extent Can a Bacteriologist Contribute to the Control of Venereal Diseases?"

Reports of the following committees: Male Clinical, P. S. Pelouze, M.D., Chairman; Female Clinical, C. C. Norris, M.D., Chairman; Laboratory and Research, C. M. Carpenter, M.D., Chairman; Public Health, Thomas Parran, Jr., M.D., Chairman, Sociological, W. F. Schott, M.D. Chairman, Sociological, W. F. Schott, M.D. Chairman Snow, M.D. Chairman.

Discussion and action on the following questions: (a) Methods of obtaining funds for encouragement of research on the gonococcus and gonococcal infections; (b) Publication of transactions; (c) Work programs for the ensu-

7:30 P.M. Dinner (The Niesserian Medical Society of Massachusetts will be host).

at Hotel Phillips, Kansas City, Missouri. The program will be devoted to Cardiac insufficiency.

PEPTIC ULCER IN CHILDHOOD With Case Report

FRANK J. WILLIAMS, M.D., Albany

Peptic ulcer is a highly prevalent disorder in adult life. Its etiology is not definitely known and its clinical manifestations are often so obscure as to escape early recognition. Most persons who have an ulcer suffer a long time before they finally obtain relief through a correct diagnosis and proper treatment. Stated briefly, the clinical picture consists of recurrent pain in the epigastrium. The pain is of a boring and burning character and is present only when the stomach is empty. The prompt relief obtained by taking food is a striking and characteristic feature of this condition. Another important symptom is nocturnal pain which awakens the patient every night or early morning and is relieved only by taking fook, milk or alkalies.

According to all available clinical records, peptic ulcer is of rare occurrence in young children. In a recent review of this subject Kennedy¹ states that an ulcer in a young child fails to induce those signs and symptoms which in the adult lead to probable diagnosis of ulcer. He believes the familiar clinical picture is usually absent under the age of nine or ten years, but after that age they show the characteristic symptoms. The following case is of interest because the typical syndrome of ulcer is seen in a young child.

This patient was a boy of five years who had always been in average good health and whose past history was negative except for minor disorders. He was seen in January 1932 with the complaint of recurrent pain in the abdomen. The onset of the disturbance dated back several weeks and although the diet had been carefully restricted there had been no improvement. At certain periods of the day he showed definite evidence of considerable distress in the abdomen, indicated by crying and holding his hand over the epigastrium. The pain awakened him at night, usually in the early hours of the morning. The physical examination was negative and it was impossible objectively to discover the reason for his apparent distress. There had been no elevation of temperature at any time. There was no abdominal rigidity, no tenderness to pressure, and no distention. There had been no vomiting and no bowel disturbance. Occult blood was not found in the stools. The absence of physical signs and the character of the pain suggested the possibility of ulcer. This diagnosis was verified by x-ray examination which revealed a niche in the cap of the duodenum. The child was placed on a modified Sippy diet consisting of milk and bland foods given at frequent intervals, with the addition of alkalies. Improvement was noted almost at once after ulcer therapy was employed, and complete healing was accomplished after its continuance for several weeks.

Morse² analysed from his records 14,-000 cases of chronic or recurrent pain in children among which he found five cases of ulcer. Palmer³ collected reports of forty-five cases in children which were found at operation, in only ten of which was a correct diagnosis made. The literature contains reports of ulcers occurring in infancy and early childhood, many of which are recorded as postmortem discoveries. Henderson4 asks why ulcers in childhood are so frequently reported by pathologists and so rarely reported by pediatrists. In view of its frequency in adults the questions arises whether it occurs more often in children than it is diagnosed. Jankelson⁵ states that ulcers in children are overlooked for four reasons:

- 1. They are not suspected in childhood
- 2. In younger children a history cannot be obtained

3. Uncomplicated cases do not give a his-

tory typical of ulcer

4. X-ray examinations of the digestive tract are not made with same frequency as in adults.

It is claimed by enterologists that a substantial percentage of persons with this condition give histories of gastro-intestinal upsets dating back to child-hood Moynihan agreed that many adult cases admit, on query, having had symptoms dating back to the age of ten years or earlier. Digestive disorders are numerous and varied in children. The pediatrist should regard the chronic ones, especially

Read at the Annual Meeting of the Medical Society of the State of New York, Albany, May 14, 1935 those associated with hyperacidity, as possible ulcer or as antecedents of this condition in later life. Marked progress has been made along the lines of scientific feeding, especially as to vitamin content and mineral balance which serve to protect the child against nutritional deficiencies. It is also important that he be safe-guarded against possible damage to the gastrointestinal mucosa

Summary

A case of duodenal ulcer in a young child is described to call attention to the possible presence of this disorder in childhood

Ulcer should be considered in cases of recurrent epigastric pain and its possible occurrence at any age must be realized

Its diagnosis with the aid of the x-ray is easy if suspected The x-ray is a more reliable aid than gastric analysis and is easier for the patient

The absence of vomiting, of occult blood in the stools, and of physical signs in the abdomen do not exclude the diagnosis of ulcer.

Rapid healing will result in childhood as in adult life if the diseased area is protected from the digestive juices which can be accomplished by such treatment

as the Suppy diet and alkalies

Chronic and recurrent symptoms referable to the digestive tract should be looked upon as possible forerunners of peptic ulcer in adult life Efforts should be made by the pediatrist to correct all digestive weaknesses which might be the predisposing factors of this common ailment, and thus reduce its incidence

58 S SWAN STREET

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Discussion

DR ARTHUR W BENSON, Troy -Dr Williams has made a distinct contribution in reading a paper upon "Peptic Ulcer in Childhood" Considering its importance, the subject has received scant recognition in the past We will all, I am sure, think of that condition more often in future, especially when encountering gastrointestinal disturbances and whenever a diagnosis is obscure Every pediatrician is eternally on the lookout for pus in the urine in girls, and for outs media in all children Likewise should we not be eternally vigilant to detect a possible gastric or duodenal ulcer?

It is encouraging to know that an x-ray can be so helpful I fear that I have not secure ! an x-ray picture frequently enough in handling very young children. In the two cases I've seen in babies, in both instances the diagnosis was made postmortem. In both cases the possibility of gastric ulcer was not suspected by myself or my colleagues in the hospital I feel that it has been very profitable for me to go over the literature I strongly suspect from the comments of several observers, that the condition is not nearly as uncommon as we have always thought

MEETING OF AMERICAN ASSOCIATION FOR THE STUDY AND CONTROL OF RHEUMATIC DISEASES

The American Association for the Study and Control of Rheumatic Diseases is holding its fifth conference on rheumatic diseases at the Phillips Hotel, Kansas City, on May 11 at 9 A M

- 1 Russell Haden 'Chincal grouping and diagnostic approach to the patient with joint conditions"
- 2 Edwin B Jordan, "Differential diagnosis of joint diseases from the standpoint of pathol-
- 3 Ralph Boots, "The essential features in differential diagnosis of atrophic and hypertrophic arthritis
- 4 Joseph L Miller, 'Differential diagnosis between Strumpell Maric, and osteoarthritis of the spine

- 5 Stafford Warren, 'Differential diagnostic points of gonorrheal arthritis
- 6 Frank D Dickson, 'Differential diagnostic points of tubercular arthritis, especially tubercular polyarthritis"
- 7 Ralph A Kinsella, "Differential diagnostic points of rheumatic fever"
- 8 Phillips S Hench, 'Differential diagnostic facts about gout, distinguishing it from other joint diseases"
- 9 Willis Campbell, "Differential diagnosis of traumatic arthritis"
- 10 C H Slocumb, 'Differential diagnosis of fibrositis"
- 11 William J Kerr, "Differential diagnostic points of constitutional conditions mistaken for arthritis, which produce skeletal aches and pains "

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B. LIBER, M.D., DR. P.H., New York City

Editorial Note: Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not comblete clinical studies, but will accountate cituations from the boint of view of a size of the studies. service of this author in the New York Polyconic Precious School and Property of view of are not complete clinical studies, but will accentuate situations from the point of view of individual studies with as crop ath in the grown day practice of anadicine complete contact states, our com accentance statements from the point of a complete contact states, our contact in the every day practice of medicine individual mental hygiene such as crop up in the every day practice of medicine

A man of forty had frequent attacks of indigestion, with epigastric pain and vom-This began ten years before, after the death of a member of his family. Investigation showed that he had been afraid that he too might die and that the only prevention he could think of was food.

He was far from intelligent and, within a short time, the need for food became an obsession for him. It was not an appetite that he tried to satisfy; it was a habit that changed into a craving, a gluttony that made him voracious to the same degree as the drunkard who is attracted to drink claims to be thirsty. He was indeed suffering from

No sooner had he finished his meal than food drunkenness. he asked for more food or bought it if he was away from home. He ate almost constantly the whole day and sometimes during the night, that is whenever his irritated digestive tube awoke him.

He gained no weight. He was very emaciated and weak and had great difficulty in performing his insignificant task. Prognosis was bad and unless help was coming soon his very life was in danger.

His case had been repeatedly studied by competent physicians, who found no organic trouble which could explain his condition.

He needed severe discipline, rigid education, which, as soon as it became possible, in an institution, helped him not only to be restored to normal weight and to a regularity in eating, but to a conviction that his health and life did not depend on ceaseless intake of food.

It was necessary to lecture him about digestion, about the digestive juices, and so on, all in the most elementary way.

But the final touch and the most causal treatment was the removal of his apprehension, his fear of death.

Heroism

A woman of thirty-eight, living with her husband in New York, had left her only son, now twenty, in Italy, six years ago.

She had had four major surgical operations, one of them a Cesarean and the latest a pelvic one which brought on the meno-

pause, three years ago.

Her complaint was, beside the climacteric symptoms, a fear of disease, a restlessness and depression, which could not be explained through anything in her environment that might have made her unhappy. Husband's behavior was "perfect" and she loved him and he loved her.

She longed for her boy, but circumstances

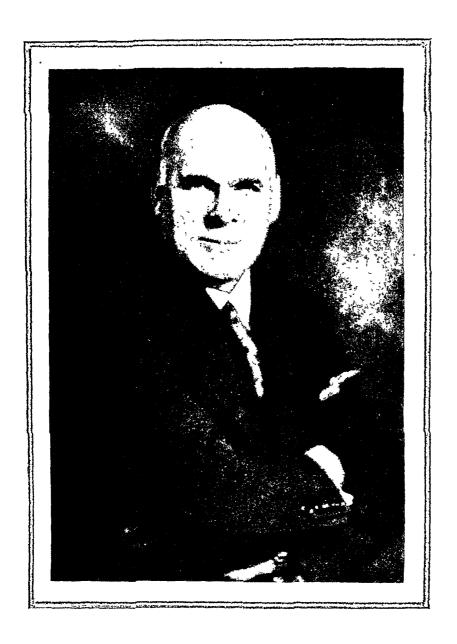
did not allow her to join him.

She often started weeping when seeing young men of her son's age.

No matter how her state of mind and her mood might have been understood, it was evident that she was heading toward some serious maladjustment or mental catastrophe.

What she needed mainly was encouragement-and that helped-also a correction of her point of view. For instance, the operations which she had undergone were either a subconscious excuse or a real reason for a feeling of great inferiority. She was no good; she was below other women of her age, and so on. The examiner called her a heroine; she was wonderful. Only an exceptional resistance made it possible to stand those operations and to withstand their effects and recuperate from them. She deserved a medal—quite as much as a soldier wounded in battle, etc.

Once upon a time a physician, an engineer and a politician were in earnest discussion concerning the antiquity of their professions. "Medicine is the oldest of all," said the physician. "It is recorded in holy writ that God removed a rib from Adam and created Eve. That surely was the first surgical operation." "But earlier than that," said the engineer, "God created order out of chaos—an engineering problem." "Well," said the politician, "my profession antedates both of yours. May I ask you who created chaos?"-From an address by Dr. Nathan B. Van Etten.



FLOYD STONE WINSLOW, M.D., F.A.C.S.

STATE JOURNAL

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EDITORIALS

The New President—Dr. Floyd S. Winslow

We live in a significant period of medical practice. The structure of the social order medicine serves influences the character which the delivery of medical service takes. In the changing period through which we are passing, it would seem that we are particularly fortunate in the selection of him who will hold the reins of leadership among us. For he is no novice.

Dr. Floyd S. Winslow, a native of our state, has reached his high office after years of service to science, to medicine, and to the organized profession. It is not our purpose to write a biography. Suffice to call attention to a period of service extending nearly thirty years, during which his counsel and wisdom helped toward solution many perplexing problems. Monroe County may well be proud of its distinguished son, who has been president of its County Society, its Academy of Medicine, and president of its Pathological Society. We have known him as a delegate to the State organization for years, and as Vice-Speaker of our legislative body. His interest in civic affairs denotes the extent of his sphere of influence: his horizon is wide.

Under his leadership we expect his broad range of interests to give us a large viewpoint and his intimate acquaintance with our affairs and our machinery of government to furnish a state administration which shall be progressive, forceful, and liberal.

Dr. Frederic Ewald Sondern

It is with feelings of sincere regret that we note the finish of the fine administration of Dr. Frederic E. Sondern, Wisely our laws provide for his continuous service as past-president in the Council and Executive Committee for another year. The administration which has just culminated in the brilliant annual meeting in New York City was one during which the State Society passed through periods of hard sailing. The inauguration of the new Workmen's Compensation Law and the adoption of its fee schedule, the transference of the malpractice defense insurance-to cite but two outstanding issues -would easily, under any other less masterful handling, have led to disunion, disruption, and controversy. During his whole term the evident courtesy, patience, and philosophy of the leadership reacted to bring controversy to compromise without sacrifice of fundamental principles. Wise, cheerful, and just in his decisions. he had the happy faculty of being able to bring around him men glad to serve him and help in the common cause.

In looking at our retiring president and viewing his very evident executive accomplishments of administration, we are apt to overlook the fact that amidst all his obligations and duties to organized medicine in this State, he has never lost sight of his prime interest in his professional intellectual life. His professional life has been lived during the evolution of clinical pathology, and he still is an outstanding figure in this field of medicine. Nor has his interest lagged during the years devoted to organized medicine. The National Association of Pathologists, the qualifying boards of which have recently been revised and standardized to meet in equality with other professional qualifying boards, owes much to Dr. Sondern.

We congratulate Dr. Sondern upon the completion of a term of office during which added distinction was won for organized medicine, but we hope that we may have him among us for a long time so that we may profit from his maturity and his wisdom.

The New Surgeon General of the U.S. Public Health Service

Dr. Thomas Parran, Jr., whom we had come to know better the longer he was Health Commissioner of the State, has succeeded Dr. Hugh S. Cummings as Surgeon General of the United States Public Health Service.

In New York he has left behind him a fine record and a career in which he can take just pride. We wish for him continued success in his new field, and we pledge him loyal support in all worthy endeavors for the public welfare, in which we, too, are vitally interested.

We feel that a better understanding has been evolving between the State health authorities and the organized profession lately. We desire nothing better than that Dr. Parran shall continue the development of this better mutual comprehension "through liberalizing present medical practice and coordinating it with public health and medical services." We certainly find accord with the ideas expressed by Dr. Parran in his address on Health Security before the recent annual meeting of the New York Tuberculosis and Health Association. "* * * And

finally, how (shall we) control the everyday circumstances that are the basic factors in health—housing, food, work and working conditions, a living wage? For surely it seems an unscientific use of our effort and an unbusinesslike failure to order our affairs, when we struggle to control and to cure disease that could be prevented at the source."

Another sentence, which had all the earmarks of a slogan, attracted our attention: "The problem of the patientless doctors and the doctorless patients." With the former we have the same sympathy that any failure in human endeavor arouses. The doctorless patient, however, is our constant concern. It is our hope that study and wise planning will eventually find a solution for this problem. The solution should not be had, however, by setting up a bureaucracy which might eventually change the whole pattern of our parliamentary system of government.

The New State Commissioner of Health

Governor Lehman has appointed Edward S. Godfrey, Jr., State Commissioner of Health. Dr. Godfrey is a career-man in the department, who has had at least thirteen years of experience in private practice. From this we shall expect an understanding and a sympathy with active medical practitioners. He must know the problems which the practicing physician faces and in him the profession should find an official who will meet the problems of medical practice not from the usual bureaucratic attitude, but from the professional viewpoint, which once he, too, held. Dr. Godfrey has contributed freely to scientific journals; his work on measles being an outstanding contribution.

We are on the threshold of new phases in medicine. Preventive medicine is rapidly developing. The organized profession is awake to the inherent dangers to the body-politic of bureaucracy, and desires to see it curtailed. It stands today embattled for its rights to continue the developments of private practice, with the implications which this holds for rewards for industry, talent, and application, as well as for the incentive to lead the intellectually adventurous to take up this career of service and devotion. The profession desires to resist the encroachment of the State upon private medical practice. It is whole-heartedly in favor of any measure of public welfare that is for the good of the people, but it desires to see paternalism reduced to its minimum requirements in delivering medical care. The profession is habituated to enduring financial sacrifices for the public welfare, and has no quarrel with a situation which is deplorable in itself without taking account of its medical implications.

If Dr. Godfrey, in planning his new administration as State Commissioner of Health, will recognize these factors, he will win for himself the entire support of organized medicine in New York. Too often the profession has found in a public health official an office-holder who is more concerned in working out schemes to aggrandize his office, than for those which leads to helpful mutual cooperation with the profession.

We wish the new Commissioner of Health every success and tender him our cooperation.

Misuse of Scientific Articles for Propaganda

It is a deplorable incident when scientific articles are quoted erroneously or deliberately misquoted to further the propaganda of groups which are antagonistic to the medical profession. It is still more deplorable when editorial comment in a medical journal upon some worthy, completed scientific problem, or upon work in progress is published incompletely or parts separated from textual contacts to the end that some laudable project may be given added publicity.

We refer to a recent issue of the Health Bureau of Rochester, New York, where, in order to emphasize the importance of syphilis control and to call attention to the excellent work performed by this organization, resort was had to picking out certain texts in one of the editorials of our Journal,2 which, when loosely connected, served to distort the real context of the editorial.

The editorial in question dealt with a discussion of the theories of treatment for syphilis held by the schools of Neisser and Chesney. Ninety-two words were omitted by the Health Bureau and these were represented by three dots in the Health Bureau publication. Had these omitted words been printed in their pamphlet, the true intent of our editorial would have been evident. To have printed these, alas, would have made the last two paragraphs of no value for the Bureau's purposes in propaganda.

Habitually we are inclined to assist health bureaus in their endeavors. We can hardly be blamed, however, for reacting to news propaganda which first changes our remarks and then terms the editorial which they reconstructed "an extremely dangerous one." Obviously, we too, would decry what the Rochester Health Bureau made of it. We strongly recommend a reperusal of our editorial.

Prognosis of Deafness in Youth

When one has to cope with degenerative changes in a sense organ, the futility of therapy in the largest proportion of instances is a most discouraging factor. While constant search is being made for remedial measures, the importance of early detection and prophylaxis must not be overlooked. Particularly is this true in the loss of hearing perception.

Many surveys have been made to determine the number of deafened persons in our midst. In the main, these have been statistical analyses more or less embellished with details as to causes, incidence, and age of onset. Fowler has taken a

^{2.} New York State Journal of Medicine, 36:193, Feb. 1, 1936.

^{1.} Syphilis Control: Health Bureau, Rochester, N. Y., p. 2, Feb. 1936,

^{1.} Fowler: New York State Journal of Medicine,

distinctly novel point of view in his discussion of moderate deafness in youth. This group, ranging from five to eighteen years of age, is most subject to the suppurative diseases of the temporal bone. Rarely does this group present clinical evidences of otosclerosis or nerve deafness.

He calls attention to the importance of slight or moderate deafness which can be determined by the physician and of which the patient rarely complains. It is only the pain and distress of the inflammatory lesion which makes the patient seek medical care. Once these have passed, the negligible loss in hearing is often apt to be ignored. It is then that the importance of treatment for hearing loss is to be considered. The avoidance of recurrence of infection in the tympanic cavity, the studied consideration of whether adenoidectomy is indicated, the determination of what constitutional factors may play a role in furthering the progression of the lesion—all are problems which the physician must face. Fowler states that, "prognosis on the average is favorable with youth and early treatment." The aurist sees the late cases only, so that it is the family physician upon whom rests the burden of early detection of impaired hearing.

CURRENT COMMENT

APROPOS OF THE UNREST in Europe at the present time we quote from the Medical Record of April 15, 1936. "One of our greatest dangers at present is that technical science has supplied us with means for annihilating the human race. Such a catastrophe can be avoided only by securing the active cooperation of science and art, and mental hygiene can show the way in which we can secure this cooperation so essential to progress in the art of living. * * * Probably the greatest contribution made by mental hygiene during the past quarter of a century has been in bringing about public realization that our most valuable possessions are our distinctive human characteristics, and that this must become an essential part of our outlook if we are to hope for an end of international strife." The foregoing comes from the address of Dr. Stewart Paton at the recent annual meeting of the National Committee for Mental Hygiene.

"BARNUM IS STILL RIGHT" claims the Observer in the Supplement to The Bulletin of the Bronx County Medical Society. "It is a peculiar thing that intellectual people with many degrees to their credit frequently are so credulous when it comes to seeking treatment for their physical ills. For some reason they do not seem to have gathered from their extensive reading even a fundamental knowledge of what is necessary to protect one's health. When someone comes along with a ready smile and a glib tongue to tell them how a miracle can be worked and thereby benefit their health, they seem to lose all power of reason and accept promises of the impossible. * * * Legislation is possible but public ignorance cannot be overcome by laws where health is concerned. We are forced to come to the conclusion that the battle against disease can be won only if we have, in addition to a welltrained medical profession, an informed public. * * *"

"'Complete Medical care for only ten cents a day,' promised by health insurance proponents, has that chicken-in-every-pot appeal which a gullible public loves. Longheaded physicians can prick the bubble when patients blow it by reminding them that ten cents a day means \$36.50 a year per individual, \$153.50 a year per family—payable in advance!"—From Medical Economics of April, 1936.

Anent the housing question: "It is also discouraging to note that the building which is being done is still for the most prosperous ten per cent of the population. We are making the same old mistake again: overbuilding for the upper-income group and wholly neglecting the vast majority of Americans who neither want nor need philanthropy in the form of government-built 'slum-clearance' projects, but who cannot afford the only kind of new houses that are being built.

The small-house problem, which must be solved before we make a real dent on unemployment, is still unsolved, and will be until Washington awakens to it and unifies the government's scattered efforts." Raymond Moley in *Today*, under date of April 18, 1936.

DISCUSSING "The Present Trend in Medical Economics" in the April Supplement to the Bulletin of the Bronx County Medical Society, Dr. James C. Sargent states that: "No one, not even the loose-talking reformers, would dare to extol the present level of

medical care in the socialized countries of the world. * * * There is no earthly reason for any change whatever in the timehonored and proved present system of private medical care except it be limited to that relatively small group of patients who occasionally suffer serious sickness, the proper care of which requires services beyond private means. The whole movement toward state medicine unblushingly brushes this pertinent fact aside."

"THE HOSPITAL AND THE PHYSICIAN," an editorial in the April Westchester Medical Bulletin states that: "There are those who go among us crying 'Peace, peace!' They would have us believe that the differences between the doctors and the hospitals are imaginary, the issues ephemeral. In so doing, these would-be palliators are rendering a signal disservice to all concerned, and they will succeed only in postponing and augmenting the difficulties of the inevitable adjustments which will be made before the hospitals and the doctors together can face their mutual destiny in confidence and security.

If the issues between these two groups cannot be denied or evaded, neither should they be exaggerated. They should be defined; and the approach to their solution should be upon the firm basis of logical principles, and genuine respect for the inalienable prerogatives of each group. * * *

The fate of the ill-starred Moran-Esquirol Bill' in the present State Legislature vividly illustrated one fact which is of almost sinister significance for the profession; namely, that in contrast to the apathy and inertia of the profession, the hospital managements and lay trustees are alarmingly aware of what is going on, nor did they hesitate, at the first instance of opposition, to try to play the charity patients themselves against the doctors who have served them so faithfully and so well in the wards and dispensaries! It would be difficult to point to any campaign against any specific legislative proposal in this state in recent years which would equal the campaign waged by the hospital managements against the 'Moran-Esquirol Bill' in respect to the bitterness, the hysteria, the unfair tactics and the incredible misrepresentations used.

And this is all the more disturbing when one considers that the proposal was built upon an incontrovertible thesis, i.e., that hospital corporations as such should not be permitted to practice medicine by collecting fees for the professional services of their professional staffs."

"Textbooks eulogize men of war but pay scant attention to the men of peace. The development of medicine is scarcely mentioned among the forces which have elevated the race from a condition of savagery to a higher plane of civilization. The French attempt at building the Panama Canal resulted in failure; the American, in success. Under the French the death rate among the workers was appalling; the American death rate was almost negligible in comparison. This difference between failure and success is attributed to the cradication of malaria and other tropical diseases by American medical science." A "Timely Brevity" in the Supplement to the Bulletin of the Bronx County Medical Society.

The Westchester Medical Bulletin quotes the following comment on corporate medicine from the book "Economic Problems of Medicine" by A. C. Christie, M.D. "** the should be understood clearly that the function of a hospital is to furnish hospitalization and certain facilities for the practice of medicine, the latter being wholly a function of physicians. When a hospital or a university receives money for the services of its hospital staff and assigns such money to its corporate income it has departed from its proper function and has entered the field of medical practice. This constitutes the corporate practice of medicine which is always unethical and in a number of jurisdictions has been held to be unlawful. * * *

It is very important at the present time that the entire medical profession maintain a united front to resist encroachments upon the practice of medicine by many different types of organizations and institutions. Medical colleges, hospitals and the medical profession are allies in the battle against disease and they can maintain their alliance only if each adheres to its own special field and function?"

The visit of Lord Horder, physician to King Edward VIII, to the United States, is sponsored by the League for Less Noise. He is founder and president of the English

League for Less Noise. He will speak at a dinner at the Hotel Astor, May 5. He also will speak at Harvard University and at the convention of the American Medical Society.

Correspondence

[The Journal reserves the right to print correspondence to its staff in whole or in part unless marked "private." All communications must carry the writer's full name and address, which will be omitted on publication if desired. Anonymous letters will be disregarded.]

146 Barrett St., Schenectady, N. Y.

To the Editor:

On Page 503 et seq., Volume 36—Number 7, New York State Journal of Medicine, there is an article, "Traumatic Subdeltoid Bursitis," by Joseph Echtman.

Dr. Echtman describes traumatic subdeltoid bursitis and recommends physiotherapy as treatment therefor. Before such a widespread shotgun prescription is given for this protean disease, may I be permitted to outline some of the causes of traumatic subdeltoid bursitis and recite the contraindications for physiotherapy?

Traumatic subdeltoid bursitis is inflammation of the subdeltoid bursa. An adjoining bursa, the subacromial, may be involved, or these may be confluent. An inflammation, often sterile, is excited by chronic traumatism. This traumatism may come from beneath the bursa by chronic strain on the

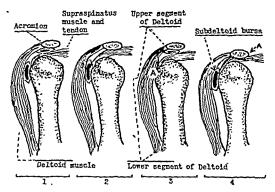


Fig. 1. Normal shoulder showing subacromial and subdeltoid bursae as separate structures. Note separation of deltoid muscle and greater tuberosity by subdeltoid bursa. Note also separation of acromion and supraspinatus tendon by subacromial bursa.

Fig. 2. Shows obliteration of subacromial bursa and adherence of supraspinatus tendon to This completely eliminates the action of the supraspinatus which means that the patient can not actively abduct the arm from

zero to thirty degrees.

Fig. 3. Shows obliteration of subacromial bursa and adherence of the deltoid muscle to the greater tuberosity. This is either painful or eliminates the ability to abduct the arm from an angle of thirty degrees to an angle of ninety degrees.

Fig. 4. Shows impingement of the acromial process on the humeral head by reason of round shoulders. This mechanically blocks motion of the shoulder and is painful by reason of ensuing

bursitis.

supraspinatus tendon. (This is seen often in tailors and leather workers.) It may come from above by reason of faulty posture which impinges the acromion upon the humeral head. Manifestly in these two conditions, physiotherapy, at the most, can do no more than temporarily relieve symptoms.

In the chronic stage, adhesion of the bursa to the supraspinatus tendon will cause pain. Adhesion of the bursa to the inferior surface of the deltoid muscle will cause weakness and some pain, since by this method the deltoid acquires a new insertion and only a small percentage of the muscle power of the deltoid is advantageously util-

By reason of long immobilization due to pain or artificial splinting, thickening will occur in the joint capsule. This is manifested late in the x-ray by a humeral head pulled high into the glenoid fossa.

In the above conditions it is only reasonable to feel that physiotherapy will be of small importance. The painless manipulations described by Dr. Echtman will prolong

disability far beyond need.

Before accepting physiotherapy as a cureall for traumatic subdeltoid bursitis, let me again recommend clean-cut diagnosis of the condition based on its etiology. Manifestly the case due to faulty posture can not be cured by heat and massage. It can only be cured by correction of the posture. The case due to supraspinatus injury will be benefited only when the supraspinatus tendon is repaired. The case kept painful by periarticular adhesions will be helped only when those adhesions are stretched out or broken. The case kept alive by adhesions of the deltoid to the humeral head will never be benefited until those adhesions are obliterated.

The case with painless calcification should not be subjected to undue treatment. This calcium soap may remain in place throughout life without symptoms. Certainly there is no indication for prolonged treatment when the x-ray finding is the only sign of persistent disease.

I hope that this letter will stimulate interest in the exact etiologic diagnosis of subdeltoid bursitis. Properly, there is no such thing as subdeltoid bursitis, any more than there is a disorder called sciatica; both are simply symptoms; neither is a Sincerely yours, EDWARD K. CRAVENER, M. D. disease.

April 7, 1936

Presidential Address

DOCTORS AND CIVICS

FREDERIC E. SONDERN, M.D., New York City President of the Medical Society of the State of New York

At the present juncture there is an unusual focus of the average mind on civics, in an endeavor to reconcile the evident incompatibility between democracy as we know it, and the new autocracies of which there appear to be an endless variety. It would seem the duty of all clear thinking people to make an unusual effort to preserve a guarantee for the continued enjoyment of personal liberty. In recent time we are threatened with types of control, certainly autocratic, and in some ways actually despotic, under the guise of economic need. Sensitized so to speak, by alarming trends or such as seem alarming, current literature dealing with the subject becomes increasingly popular and interesting.

One reads in a recent issue of the Atlantic: "Our politicians who pride themselves on their loyalty to the people, are often careless of human values. They usually think and act only in the interest of a particular, articulate coterie that applies political pressure for some special legislation. The Congressional Record for instance, reads more like the minutes of a body of representatives of special interests, than a parliament functioning for the whole people of the United States. There are Congressmen that represent potatoes and Senators that represent silver; there are Congressmen that speak for the American Federation of Labor and Senators that speak for the American Legion. In the attitude of our representatives lies perhaps the greatest peril besetting the American people today. We can survive without potatoes, but what are we to be without character?"

Turning from this drab conception of those we have elected to draft our laws and mould the policies of our nation, the following is found in a recent report of our own Committee on Legislation. "Only about one quarter, or exactly 27.8 per cent of 550 practicing physicians living in one important election district in New

York, registered to vote in a recent election." It is this evidence of dereliction in civic duty on the one hand, and the recorded unfortunate results of elections on the other, that prompted this brief presentation of my topic.

History shows the participation of the physician in government from the earliest time. Plinius, the elder, born A.D. 23, was physician to the Emperor and an unusually able Minister of Finance both by his ability to collect taxes and in frugal administration. Subsequent show an increasing number of prominent physicians in the sense that they attended the ruling Kings and potentates, who rendered outstanding service in diplomacy and other civic duties, notably in Greece and Spain. One Solomon Isak Isreli, an Arab born A.D. 854, widely known as a statesman and diplomat, was among the most prominent medical authors, not only of his day but of the middle ages. Some seven volumes of his, translated into Latin. exist to this day. His favorite topics were fever and dietetics. Early Russian political history, filled as it is with scandal, intrigue, and cruelty, quotes numerous physicians who participated in it, in addition to filling important professional po-

Scandinavian history records Struensee, a German, born in 1737, evidently a most able doctor, whose brilliant political career in Denmark reads like a romance. He gradually came to occupy a most exalted position in that Kingdom, and while intrigue led to his most cruel execution in 1772, his outstanding achievements in educational and legal reforms are recognized to this day. Olof Rudbeck of Sweden was not only an eminent research worker, having demonstrated the lymphatic system in 1653, and becoming professor of medicine at Upsala at the age of thirty, but was also the most able diplomat in Sweden of his time.

The Central European Countries like-

wise offer many striking examples of physicians who were at the same time outstanding parlimentarians and diplomats. The democratic uprising in 1848 was largely conducted by such men as Johann Jakoby in Prussia and Fischhof in Austria. A past-president of this Society, Abraham Jacobi also figured in this uprising against the government of that

The records of the political activities of physicians in France are also filled with distinguished names. The great revolution of nearly a century and a half ago, the outcome of intense sorrows of a people fomented for centuries, was expressed in blind fanaticism, bitter revenge, shocking cruelty. Unfortunately numerous physicians were among the unscrupulous, maddened demagogues, guilty of every known atrocity. The worst of all probably was the physician Marat, a revolutionist for gain rather than in principle, a mob leader in words rather than in action, who was murdered in his bathtub by Charlotte Corday in July 1793.

Guillotin, who incidentally did not invent the machine which bears his name, Trelat, Littré, Bert, and Combes were all physicians and members of the republican party who have been prominent in the government of France in those days and since. Combes it will be recalled was the primary advocate of the separation of church and state.

England in the course of the years has also had physicians in the diplomatic service as well as in other government activities. Sir Rutherford Alcock for example, a prominent medical author of his day, was an ambassador abroad, and a close student of far eastern art.

In more modern time, three names particularly come to mind. Virchow, Clemenceau and Sun Yat Sen, doctors and statesmen all.

Virchow, that mighty doctor, physicist, and anthropologist, the foremost of the 19th century, that pillar of modern pathology based on pioneer and radical research, exercised a potent influence on both the science and art of medicine, greater probably than anyone else before or since. Virchow's political activity was the direct result of his recognition of the existing and progressive decay in government efficiency, due to a growing bureau-

cracy of doubtful honesty. His fearless assertions in the political arena were characterized by the same unerring precision noted in his medical research. He achieved much in government reform in the interest of public health, and was probably the leading protagonist in opposition to Bismarck of that day. This leading Prussian statesman challenged Virchow to a duel on account of a supposed insult in the Chamber of Deputies, but in the final analysis our intrepid scientist was apparently "too proud to fight."

Clemenceau, was certainly the most

genial and celebrated statesman among the physicians of France in modern time. While he was in general practice in Paris during his early years, he soon deserted medicine in the interest of politics, and became a member of the Chamber of Deputies at the age of 35. He was a radical republican throughout and his long and successful civic career was characterized by convincing oratory, keen political sense, and absolute honesty. The rehabilitation of Dreyfuss was one of his difficult achievements in the interest of justice. His more recent political activity, especially during the world war, is so well-known as to need no comment. As an evidence of his genial nature, his remark when Woodrow Wilson presented his celebrated fourteen points, that "Moses only required 10," was characteristic of him.

Sun Yat Sen, the Chinese physician, was the leader in the overthrow of the monarchy and in the creation of the Chinese Republic.

Our own country also shows a long list of physicians in political life. Browning of Brooklyn has published the names of one signer of the Declaration of Independence, fifty-eight who were governors of states, twelve lieutenant governors, and 278 members of Congress, during the years of 1789 to 1910 inclusive. In more recent time we all know Lyman Wilbur, Hubert Work, and Royal S. Copeland in government service.

This rather long record of physicians who have served their fellow citizens by embracing political careers, is far too brief to cite their many achievements based not only on their ability as statesmen, but on their specific knowledge as physicians, and on the respect accorded

them in the appreciation of that knowledge

All of this should be a stimulus to the members of our profession, not necessarily to engage in a political career, but to undertake proper activity not only in the election of the most desirable candidates for office, but also in the more ardious duty of selection of these candidates in the first place.

Socialism or at least socialistic trends have become increasingly apparent both abroad and at home, no matter under what guise presented. Are we prepared to discard individualism in favor of collectivism? While the early history of the world relates the establishment of fundamental customs which may be considered evidence of collectivism, still the Renaissance of the 14th century noted the rebirth of individualism. It took another 500 years to completely break down those old fundamental customs by higher education, progress in science, and

competition in industry, which was followed by the most brilliant period of progress in every art and every science. Thus, true progress seems due to individual effort rather than to collective effort.

Our country had its origin from those seeking individual freedom, its constitution is based on that principle, its success resulted from the achievement of individuals, and its glory will go down in history as created by individuals and not by collective effort. While the medical profession consists essentially of those primarily interested in a science, the application of which forms the basis of the healing art and the prevention of disease, let it also realize to the full, the fundamentals which underlie liberty and happiness, and let its members devote the time and thought needed to suitably and efficiently aid in shaping political destiny to this end

20 West 55 St

The Physicians' Home, Inc.

In the autumn of 1918 the late Dr Wolff Freudenthal related to a group of physicrums who were members of a medico social society called The Medical Union the economic distibility of an elderly physician at that time an inmate in the poorhouse It was the feeling of the members assembled that an organization should be formed to create and maintain a home for aged and infirm physicians, their wives or widows or to assist in

any other way found feasible

This altruistic idea was put into practical form by the organization of a Committee with Dr Freudenthal as Chairman Application was made for incorporation under the title of The Physicians' Home, and a certifi cite of incorporation was granted to the organization on June 4, 1919 The incorporators were Drs Daniel Cook Warren Coleman, Max Einhorn, Wolff Freudenthal, Silas F. Hallock, Graeme Hammond, Fran cis Huber, Robert T Morris, Alexander Trautmen Henry Mann Silver, George Steel Ralph Waldo, Albert G Weed, John E Welch Mr Stuart G Nelson and Justice Bartow S Weeks A constitution and byliws were subsequently formulated and adopted, and the original officers were Dr Robert T Morris President, Dr Ralph Waldo Vice-President Dr Silas F Hallock, Secretary, and Dr Albert G Weed, Treasurer

In the fall of 1919 an appeal was made to the members of the medical profession soliciting members and donations for this worthy purpose The response was very gratifying and funds began to be accumulated.

The first guest of the Physicians' Home was sent to a Home for the Aged at Amityville New York, and this Home was utilized throughout the succeeding years until 1923 In 1922 the late Dr Stephen B Mountain, of Olean New York, offered to the Physicians' Home a house and farm at Canadea New York It was stipulated in the transfer that the Physicians' Home should make certrin installations and to carry out certain provisions for the maintenance of the prop erty Dr Mountain was elected Director. and acted in the capacity of Resident Man ager for the Physicians' Home In 1923 all of the guests of the Physicians' Home were transferred to the Home at Caneada This location did not prove satisfactory. The distrance from New York City at the eastern end and Niagara Falls at the western end. proved a hardship for many of the guests, together with the fact that the Home was two and a half miles from the nearest rail road station. The high cost of maintenance, together with the demise of Dr Mountain made it incumbent upon the Directors to return the property to the Estate of the late

Dr. Mountain. The guests, who had varied in number from three to eleven during this period, were lodged at the Jackson Hotel at Dansville, at Amityville, and a few at Dr. Barnes Sanitarium in Connecticut. Through the years the number of guests has varied from four to seven, and there has at all times been a waiting list. Inadequacy of income has rendered it impossible to take care of all the elderly physicians who have applied to the Home.

During the formative years many individuals have aided and made donations to the Home. Since incorporation the Officers have been: Drs. Robert R. Morris and Warren Coleman, President; Drs. Ralph Waldo, William H. Dieffenbach, Warren Coleman, and Silas Hallock, Vice-Presidents; Drs. Hallock, Albert G. Weed, Edward G. Cunningham, and Arthur L. Sherman, Secretaries; Drs. Weed, Cunningham, and Sherman, Treasurers.

On April 15, 1936 changes were made in the Constitution and By-Laws and in the certificate of incorporation, with the purpose of creating a more systematized organization. The Board of Directors of the Physicians' Home, Inc., was increased to thirtythree, as follows:

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three, as iollows:

DR. FRED H. ALBEE, NEW YORK
MR. MAX BINSWANGER, NEW YORK
DR. ARTHUR W. BOOTH, ELMIRA
DR. WARREN COLEMAN, NEW YORK
DR. THOMAS H. CUNNINGHAM, NEW YORK
DR. ADOLPH G. DE SANCTIS, NEW YORK
DR. MAX EINHORN, NEW YORK
DR. JOSEPH JORDAN ELLER, NEW YORK
DR. THOMAS P. FARMER, SYRACUSE
DR. CHARLES H. GOODRICH, BROOKLYN,
NEW YORK
DR. CHARLES M. GRATZ, NEW YORK
DR. SILAS F. HALLOCK, NEW YORK
DR. B. WALLACE HAMILTON, NEW YORK
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DR. JOHN HENDERSON, NEW YORK
DR. CHAS. GORDON HEYD, NEW YORK
DR. A. BERN HIRSCH, NEW YORK
DR. PETER IRVING, NEW YORK
DR. DAVID J. KALISKI, NEW YORK
DR. GEORGE W. KOSMAK, NEW YORK
DR. SAMUEL W. LAMBERT, NEW YORK
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DR. FEDERIC E. SONDERN, NEW YORK
DR. TERRY'M. TOWNSEND, NEW YORK
DR. TERRY'M. TOWNSEND, NEW YORK
DR. HARRY TRICK, BUFFALO
MR. J. MILLER WALKER, NEW YORK
DR. FLOYD S. WINSLOW, ROCHESTER, N. Y.
DR. LOUIS A. VAN KLEECK, MANHASSET,
NEW YORK
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A Board of Trustees was elected as follows:

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The Physicians' Home, Inc., is a worthy medical public service, and should enlist the sympathetic cooperation of all members of the medical profession, as well as the profession's non-medical friends.

We appeal to you to further the object of this organization—"To create and maintain a Home for aged and infirm physicians, their wives or widows, or to assist in any other way found feasible."

CHAS. GORDON HEYD, M.D., President

MEDICAL "MACHINE SHOPS"

The faculties that do not teach practical medicine are perhaps in some degree responsible for the wave of machine shops which young physicians are setting up all over the country, said Dr. Nathan B. Van Etten, in a recent address. Failing inspirational influence, the social objective of some young physicians seems to place material gain above service to the sick. They continue their education under the seductive eloquence of salesmen for machinery and drug houses and go deeply into debt, mortgaging their futures for several years of instalments, which must be retrieved from credulous patients, who are put through the whole show of unnecessary x-ray, fluoroscopic, electrocardiographic, lamp and mechanical tests with which the physician himself is only faintly acquainted. It is an amazing experience to walk into the office of a recent graduate and realize, by quick computation,

that some one is backing an investment of from three to five thousand dollars or more in mechanical equipment. It is reasonable to fear that these young physicians are in danger of slipping into the mire of quackery, are sacrificing ideals to expediency, and are also creating an impression in the minds of patients that physicians who do not possess these elaborate instruments are consequently incompetent to make diagnoses or to advise up-to-date therapy.

Is this unsocial conduct merely a phase of practice that will destroy itself by lowering popular respect for these instruments through their indiscriminate and unskilled use? Will it need the disapproval of medical organizations? Will it need public education? It seems obvious that machines and gadgets must be subordinated to intelligence and a revival of common sense.

Medical News

Bronx County

A SERIES OF FOUR weekly radio health broadcasts were given in April by the Bronx County Medical Society and Bronx Tuberculosis and Health Committee, as follows: "Symptoms of Tuberculosis," by Dr. Emanuel Schwarz, April 6; "The Control of Tuberculosis," Dr. M. Aronshon on April 13; "Broken Bones," Dr. Thomas O'Kane, April 20, and "Neglected Abdominal Pains," Dr. Lawrence J. McTague, April 27.

Broome County

Dr. H. Jackson King addressed the April meeting of the Broome County Medical Society, on "Acute Appendicitis."

Chemung County

THE POSTGRADUATE SERIES OF lectures of the Chemung County Medical Society, includes the following programs: April 1, "Staphylococci Diseases," by Dr. O. W. H. Mitchell, of Syracuse; April 8, "Practical Everyday Obstetrics," by Dr. James K. Quigley, of Rochester; April 15, "Pneumonia," by Dr. Russell L. Cecil, of New York City and Dr. Bleyer, of St. Joseph's Hospital; April 22, "The Newer Endocrinology and Gynecology," by Dr. Thomas P. Farmer, of Syracuse; May 6, "Thyroid Diseases," by Dr. Martin P. Tinker, of Ithaca; May 13, "Hypertension," by Dr. Clayton W. Greene, of Buffalo.

Dutchess County

THE STANDING or medicine as a profession and the value of associations of allied professions were discussed at a dinner meeting of the Dutchess County Medical Society at the Nelson House in Poughkeepsie on March 21, by Dr. James Rooney, of Albany, former president of the New York State Medical Society, and Dr. Joseph Lawrence, executive secretary of the state society. Approximately seventy-five attended.

Dr. James E. Sadler was appointed chairman of a committee to investigate the proposed hospital group insurance plan by the Dutchess County Medical Society at its April meeting. Dr. Sadlier will select the other members of the committee.

Dr. John P. Ross, president of the society was in charge of the meeting. The scientific program included a symposium on gall bladder and liver, Addresses included: Anatomy and Function, Dr. H. M. Hedgecock; Surgical Aspect, Dr. A. R. Moffit; Medical Aspect, Dr. Scott Lord Smith; and X-ray Viewpoint, Dr. C. O. Davison.

Erie County

IN RECOGNITION of the esteem in which he is held by the medical profession and of his major accomplishments in the science of obstetrical surgery, Dr. Irving W. Potter, of Buffalo, on April 2 received a gold medal from the Buffalo Academy of Medicine.

The award was presented at the annual dinner of that organization and the Medical Society of the County of Erie in Hotel Statler ballroom. Dr. Allen A. Jones, another veteran Buffalo physician, made the presentation in behalf of the academy.

Approximately 400 members of the medical profession of Buffalo and vicinity paid a rising tribute to Dr. Potter. The award has not been given by the academy for

many years.
Dr. Herbert J. Donnelly, president of the academy, and Dr. Milton G. Potter, president of the Medical society and son of the man of honor, made brief remarks.

Born in Buffalo sixty-seven years ago, Dr. Irving White Potter was graduated from the University of Buffalo, School of Medicine in 1891. For forty-five years he has been practicing in Buffalo and for three decades has specialized in obstetrics.

Twenty years ago he was elected a Fellow of the American College of Surgeons. He is a past president of both the Buffalo Academy of Medicine and the Medical Society of the County of Erie. He is also a member of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons and the American Medical Ass'n.

Dr. Potter is attendant at the Buffalo City hospital, Millard Fillmore, Deaconess

and Lafayette General hospitals.

He is not only the father of a physician, but the son, grandson and great-grandson of physicians. His father, Dr. Milton G. Potter, was dean and professor of anatomy of the University of Buffalo Medical school. His grandfather and great-grandfather practiced medicine in Wyoming county.

Kings County

A DINNER-DANCE in celebration of the Twentieth Anniversary of the Medical Society of Bay Ridge was given at the Graud Ballroom of the Hotel Bossert recently.

FITTY-FIVE MEMBERS of the Brooklyn-Long Island Chapter of the American College of Surgeons visited the University of Toronto and allied hospitals in April for an all-day clinical program. This trip was one of a series of chapter visits to various large medical centers two or three times a year during the past five years. DR. MORRIS HINENBURG, assistant director of Montefiore Hospital in the Bronx will assume his duties as executive director of the Jewish Hospital in Brooklyn on May 1, according to an announcement by Joseph J. Baker, president of the hospital.

Monroe County

APPOINTMENT OF Dr. George W. Corner, professor of anatomy in the School of Medicine and Dentistry of the University of Rochester, to be Thomas Vicary lecturer for 1936 of the Royal College of Surgeons of England, is announced at the University. The lecture will be given in the historic hall of the college in Lincoln's Inn Fields, London, in December. Doctor Corner also will give a series of three lectures by special invitation of the University of London, and another at Guy's Hospital Medical School.

His lecture at the Royal College of Surgeons will deal with surgery in the Middle Ages. In his lectures at the University of London and Guy's Hospital, he will discuss various aspects of the research which he and his associates have been carrying on for several years on the functions of the reproductive organs, leading to discovery and isolation of the ovarian hormone, progestin.

ROCHESTER NEWSPAPERS recently noted the seventy-sixth birthday of Dr. Charles F. Otis, of Honeoye Falls, who told the reporters that the way to keep young is to keep working. Dr. Otis's father and grandfather also practiced medicine in Honeoye Falls, and his son Charles is a doctor in Rochester.

Nassau County

By a strange coincidence, as noted in the local newspapers, Nassau County lost on the same day two of its oldest physicians, who were at the same time its oldest heads of financial institutions. The deaths of Dr. Frank T. DeLano, president of the Bank of Rockville Centre Trust Co., and Dr. Samuel Johnson Bradbury, of Lynbrook, president of the Peoples National Bank and Trust Co., occurred on March 28. Dr. DeLano was in his eightieth year and Dr. Bradbury in his eighty-third.

Dr. DeLano was a past president and secretary of the Essex County Medical Society, past president of the Queens and Nassau County Medical Society. After the separation of the Queens County Medical Society he joined the Nassau Medical Society, the Medical Society of the State of New York, and became a fellow of the American Medical Association. With the organization of the Associated Physicians

of Long Island, about 1893, he became a charter member, and in 1910 was elected president.

New York County

FOR THE PAST FIVE years the Joint Committee of the Organized Medical and Dental Professions of the City of New York has been encouraging medical-dental cooperation in the treatment of the sick. The Joint Committee has conducted combined medical-dental meetings and arranged programs which attracted large audiences of physicians and dentists. These meetings have become a regular institution in Greater New York. This committee has arranged medical-dental programs for the New York State Medical and New York State Dental Associations.

While considerable progress has been made in reaching the practicing physicians and dentists, the Joint Committee realized that in order to make medical-dental cooperation more general in the future it was necessary that medical and dental schools should be encouraged to teach their students the importance of such cooperation in car-

ing for patients.

To carry out this objective, the committee sent a questionnaire, two years ago, to all grade A medical and dental schools in the United States and Canada to ascertain to what degree the schools emphasized the correlation between medical and dental sub-The report of this research was submitted at the 1934 Combined Medical-Dental Meeting and aroused considerable interest among the educators present who discussed the report. It was suggested, that knowing the deficiencies of this teaching in the professional schools, it would be of value to have the Joint Committee go a step further—to submit specific recommendations for the improvement of medical and dental curricula in regard to this important but neglected phase of instruction.

Following the adoption of a resolution at the 1934 meeting a subcommittee was appointed to study the curricula of all Medical and Dental Schools and to report back to this body its opinions and recommendations.

That subcommittee decided that since the curricula of the schools are already over-crowded with courses, and many departments are clamoring for more teaching hours it would be best, for the present, not to suggest any radical departure from present methods, but to attempt to suggest changes which would not materially alter the curricula of the schools, but would use already available hours in the various teaching branches to emphasize the relation between the teeth and general health.

To go into detail as to hours and subjects to be taught would only engender resistance on the part of the schools, so the committee is presenting the following outlines which it hopes will call attention of the educators to the subjects in which medical-dental relationship arises.

RECOMMENDATIONS FOR MEDICAL SCHOOLS

1 The committee is of the opinion that if attempts are made to force too much upon medical schools in this connection they will say that they have no room for a course in this subject and will not consider the matter at all

2 The committee does not believe that it is practicable or necessary to give a complete, comprehensive course in this subject.

3 Re-calling attention of the appropriate are found to

ourse in this subject

3 lb; calling attention of the various teaching departments to the importance of the teeth in relation to the general health and disease, much can be accomplished toward furthering the cause. The committee terfore mades the following suggestions for the medical curriculum

(a) In Austomy and Histology An hour's special attention to teeth and jaws (b) In Physiology The importance of the teeth in digestion, massiciation. Occlusion to the teeth and the control of the design of the teeth, alternative the control of the design of the teeth, alternative the control of the teeth and the control of the control

discress
(d) In Bacteriology The teeth and their surfounding tissues as soil for bacterial growth and for dissemination of infections
(e) In Hygiene Importance of care, preserve ton and replacement of teeth to prevent discress (f) In Physical Diagnosis (1) Recognition of conditions in the mouth captile of acting as foci of the diagnosic procedures to the diagnosic procedures (2) Recognition of conditions prejudical to health—carries uniqued teeth, mal occlusion faulty deniures, etc.

to health—caries unerupted teeth, matoccuisson faulty dentures, etc.

(g) In medicine and allied specialities. The relation of dental conditions to general diseases.

(h) In surgery and allied specialities. In addition to dental captures are surgery the importance of dental captures of the surgery dental captures and the necessity for dental captures and distinct to other surgical procedures should be stressed.

4 In the senior year, one to three lectures correlating all the facts presented in the different courses should be given preferably by a dentist of wide

experience 5 tvery medical student should have a full mouth dental x ray taken

ORSTETRICS

Obstetric patients should make regular visits to the dentist during the entire course of gestation

1 Prophylactic Dental Care
(a) Hyperic care of the oral cavity
(b) Diet for expectant mother
Influence of diet on teeth of (1) Mother,
(2) Offstructurality
Influence of victimus
(c) The Carlot Carlo

- Influence of Vustercol—Cod Liver Oil
 (c) Focal Infection—Isotor in (1) Toxemia of
 Fregnancy, (2) Sepsis (postpartern)

 2. Active
 Fregnancy, (3) Sepsis (postpartern)
 Discounting the Conditions which may include
 (a) Extractions, fillings, root canal treatment, apical abscess, removal of bengin no plasm, gingival hypertrophies, pyorrhoza
 (b) Anesthesia—(1) Local or Block, (2) Gen
- 3 Medical Dental Conference about Case, Progress
- Notes (a) Medical dental conferences should be held
 - (a) Medical dental conferences should be held when the dentist is in doubt about his patient's general health of the conference of the conference of the dental discoust and notes furnished by the dentist on the treatment he rendered to the natient (c) The physician should note whether or not there is improvement in general health
 - of patient

RECOMMENDATIONS FOR DEVIAL SCHOOLS

Recommendations for Devial Schools

I Supplement Courses in General Pathology by more practical clinical observation. Courses in General Pathology should be supplemented by more clinical observation of the conditions causing the morbid tissue conditions covered in the lectures and laboratory in struction. The correlation should be extended to clinical observation of the course of infections studied so that fectures and laboratory examinations may be teen in definitely with clinical symptoms should provide actival Hostital operative experience. The courses in Maxillo I acial Surgery do not give enough hospital contact and experience. The men do not actually work, themselves, under hospital conditions. There

in Maxillo I acial Surgery do not give enough hospital contact and experience. The men do not actually work, themselves, under hospital conditions. There fore, provision should be made for dental students to actually do operations in the hospital for everal days. Fven if the operation is a simple extraction, the students should prepare in the same manner as if a major piece of Oral Surgery was to be done. Only by actual participation can the proper feeling and judgestanding be given to these men.

ui derstanding be given to these men

3 Courses and assignments in Oral Diagnosis to be
extended to actual medical and dental cooperation extended to actual medical and dental cooperation. Particular arters should be laid on the relationship of dental infection to discuse elsewhere in the body. Physicians and dentitist should cooperate in making the diagnosis. The case should be worked up by both professional groups in the presence of the students and a complete program for health rehabilitation determined upon so that the dentist will know what effect may be expected to result by his prevention of, or elimination of infection in his particular area, and what effect will be had upon the dental efforts by the elimination of infection, and alteration of systemic elimination of infection, and alteration of systemic

elimination of infection, and alteration of systemic disturbance by the physician

4. Wore actual practice train of should be provided in those Universities having the Medical School Hos pital available, efforts should be made to provide each student with actual residence within the hospital under competent supervisors, even though the time may be only one week. I rist, more actual knowledge of hospital procedures practice care of the change of the pital procedures practice care of the change of the condition o mencement

5 Medical and Dental Students Health Examination Fvery dental student should have in his third of fourth year a thorough physical examination follows: iourin year a thorough physical examination following the above ideas and a written report submitted by the student, analyzing his own cordition and making specific recommendations for treatment, should be provided

provided Actual experience in clinic and classroom will soon produce further advancement of teaching to better impress the student dentist that his every service is a health service, that the physician's aid should be sought frequently, and that aid and cooperation should be given freely to the physicians at all times

Note - The Joint Committee desires your opinion and suggestions on these recommendations and will appreciate your early reply. Please address your reply to M. O MAGID, M D, Sccretary, 1018 East 163 Street, New York, N Y.

THE OPENING CEREMONIES of the Italian Medical Center at 135 East Fifty-fifth Street were held on April 11. The center was founded and is under the direction of Dr A L Soresi It has a capacity of more than one hundred beds.

The center includes operating rooms, an x-ray department, clinical and laboratory sections and most modern hospital facilities.

DR ARTHUR B DUEL, vice-president and chairman of the board of the Manhattan Eye, Ear, and Throat Hospital, died on April 11 at his country home near Pawling. He was known as co-originator of a method

for curing facial paralysis. With the late Sir Charles Ballance of London he succeeded in direct repair of injured nerves through grafts taken from other nerves.

Niagara County

WILLIAM MARTIN, of New York City, assistant general counsel to the New York State Medical Society, addressed the joint dinner meeting of the Niagara Falls Lawyers' club and the Niagara Falls Academy of Medicine, at the Niagara Falls Country club on April 17 on the subject "The Legal Relationship of Patient and Physician." Dr. R. W. Holt is president of the Academy and Raymond A. Knowles, president of the Lawyers' club.

DR. RICHARD H. SHERWOOD, president of the Niagara County Medical Society, gave a radio talk on April 10 at radio station WGR, Buffalo, on "Early Diagnosis of Tuberculosis."

Onondaga County

THE ONONDAGA MEDICAL Society, at its meeting on April 7, at the University Club in Syracuse, heard two interesting papers on "Landry's Paralysis"—Report of five cases, by Dr. Frederick N. Marty and Dr. Wardner D. Ayer, and "Acute Poliomyelitis in Syracuse in the last Twenty Years," by Dr. A. Clement Silverman.

Ontario County

THE QUARTERLY dinner-meeting of the Ontario County Medical Society was held at the Clifton Springs Sanitarium on April 14. The scientific session was conducted by the sanitarium staff in the nature of a clinical-pathological conference on tumors of the large bowel, with presentation of case reports.

Otsego County

Dr. George William Augustin, of Oneonta, who died on March 28 at the age of fifty-nine, had been health officer of the city for twenty-seven years. He organized medical inspection in the schools two years before it became obligatory by law.

During the World war, he served overseas with the rank of major. He was in major engagements at St. Mihiel and the Meuse-Argonne, serving in those sectors from September 1 until the Armistice. He was awarded a citation for bravery under fire and was presented with the order of the Purple Heart.

Richmond County

Dr. John L. Rice, New York City health commissioner, was a guest at the annual

dinner of the Richmond County Medical Society, April 15, at the Richmond County Country Club on Flagg place, Dongan Hills.

St. Lawrence County

TWENTY-THREE MEMBERS of the Ogdensburg Medical Society attended the April dinner meeting at the Crescent Hotel. Drs. T. S. Barnette and R. J. Reynolds of Potsdam and Dr. L. T. McNulty of Norwood conducted a discussion on pneumonia. Dr. H. E. Vaughan, president of the society, presided.

Tompkins County

THE MARCH MEETING of the Tompkins County Medical Society was held at the Tompkins County Memorial Hospital on March 24. The Society was addressed by Dr. Geo. D. Vogt and Dr. H. I. Johnston

of Binghamton.

Dr. Vogt talked upon the Gradient Plan and his lecture was illustrated with various graphs and statistics. Dr. Johnston talked upon medical economic conditions about Binghamton, discussing particularly the Spaulding Plan and the arrangement with the Medical Profession that the Endicott-Johnson Shoe Co. have. Then followed considerable discussion, particularly regarding the Gradient Plan. The concensus of opinion appeared to be that there were a number of points in the Plan which would make it unsuitable for use in Ithaca and vicinity.

After the speakers of the evening had departed, the Society held a short business session. The chief point of interest was a discussion of the Ehrlich bill which is in assembly, namely an act to amend the Public Welfare Law in relation to manner of providing cost of medical care in the home. This was discussed freely and the Society unanimously endorsed this act.

Warren County

APPROXIMATELY EIGHTY gathered in the auditorium of the Crandall library on March 27 to hear Dr. Robert Loeb address the Glens Falls Academy of Medicine on "The Role of Sodium in Adrenal Disease."

Dr. Loeb, of the Presbyterian Hospital in New York and associate professor of medicine at the College of Physicians and Surgeons, told of research work in disease in the adrenal gland.

Dr. A. N. Foxe of Glens Falls is the author of "Crime and Sexual Development," a new book published by The Monograph Editions press.

Medicolegal

LORENZ J. BROSNAN, ESQ.
Counsel, Medical Society of the State of New York

Malpractice-Ether Burn of Eye

A case very recently passed upon by the Courts of one of the New England States furnishes a good example of the type of situations that arise from time to time in surgical practice, where, although a doctor uses care and skill, an unfortunate result is contained by the residents.

is sustained by the patient.*

The action was one brought against an anesthetist who had participated in an operation performed upon a woman for a thyroid cyst. In the pleadings the plaintiff charged that the defendant physician had been so negligent in administering ether to her in the course of the operation that her eyes were badly burned with a claimed impairment of vision.

The persons present at the operation were the four persons who made up all of the witnesses who testified upon the trial of the action. They were, the patient herself, the operating surgeon, Dr. D., the hospital nurse who assisted at the operation, and the defendant who administered the anesthetic.

The plaintiff in her testimony told of the preliminaries to the operation and then described how afterwards she realized that her eyes were afflicted in such a manner that she could not open them, and how when she left the hospital she could see very little. She told of discussing the condition with the surgeon and learning that ether had gotten into her eyes. She gave a story of pain and suffering and told how she had undergone treatment for her eves for weeks.

treatment for her eyes for weeks.

The records of the hospital were used to show that the second day after the operation the patient had "conjunctivitis from ether in the right eye." Other entries in the records showed that about two weeks later she received treatment for conjunctivitis, and that a diagnosis of the condition was at one time made that her condition was "de-

nuded corneal epithelium."

The surgeon who had been the plaintiff's family doctor testified that prior to the operation she did not suffer from the condition.

The principal witness in the case was the defendant who was first called as a witness by the plaintiff. He detailed his qualifications which showed that he had had considerable experience in anesthesia.

The only testimony upon the trial as to the actual administration of the ether was

* Klucken v. Levi, 200 N. E. 565.

supplied by the defendant. He had started the procedure by the use of a Gwathney machine in order to "bring the patient to the state of anesthesia known as induction, and then to be carried into the stage known as moderately deep anesthesia." He then changed to a cone, stating that it was easier to use than the mask, and that with the cone he could maintain a quiet even level of sleep. The cone was, he said, made of cardboard in cylindrical shape, open at both ends, filled in the upper third with gauze and covered with a heavy towel. He explained that the towel protected the face from the cardboard and absorbed ether which might run from the gauze. The ether was poured by hand into the cone from a metal container held by the nurse. The patient's eyes were protected by towels which were lifted on occasion to determine the reaction of the pupils, as an aid to determine the amount of ether to be administered. The doctor described how he had held the patient's chin with one hand and the cone with the other, and that he would lift the cone and invert it, and direct the nurse to pour amounts of ether in liquid form into the cone, and after holding the cone in his hand until full evaporation had taken place he would replace the cone.

The doctor testified that if fumes or liquids got into the patient's eyes, as he handled the cone, it must have come from outside the cone. He stated that it would take a large amount of ether to saturate the bandages over the patient's face, and that if the apparatus were properly handled no fumes or liquid would get into the eyes. He denied that if fumes or liquid got in the eyes it would indicate that the apparatus was improperly handled. The anesthetist further testified that he had properly handled the apparatus and he did not see how fumes or liquid got into the patient's eyes. The doctor asserted that he had taken extraordinary precautions that all should be done properly in the particular case.

Upon questioning by plaintiff's counsel the following answers were elicited from the

defendant:

Q. If any ether got into her eyes it came from outside the cone or leaked from the bottom of the cone into her eyes?

A. If it got into her eyes it would have to come from an outside source, yes.

Q. And if that were done by the ordinary

anesthetist you would say that that was improper, wouldn't you, if it got into her eyes in that way?

A. To my mind, I wouldn't say it was im-

proper.

Q. But you wouldn't expect the ordinary anesthetist to permit it to get into the eyes of the patient under those circumstances, would you?

A. I wouldn't, no.

He also made the following statement in the course of his testimony:

There was no way in which one could absolutely prevent ether vaporization from reaching the eyes of the patient and with the use of the towels there would be no escape of liquid ether.

The nurse, when called as a witness, described her training and presented ample proof that she was an experienced operating room assistant. She corroborated the doctor's description of the details of the methods used by him in handling the anesthesia, and also stated that he had not departed from the usual technic.

With the testimony substantially as outlined, the Court submitted the case to the jury and a verdict was rendered against the doctor. An appeal was taken by the defendant upon the contention that upon the record he was entitled to have had a directed verdict in his favor. The Appellate Court reversed the holding of the Trial Court, and ruled that the case should never have been submitted to the jury for their determination.

In so ruling the Court said in part:

There is no evidence that the defendant did not possess the standard of skill which the law required him to possess and there is no testimony in the record, lay, or expert, that there was any "departure by the defendant from the usual technic in handling the gas oxygen anesthesia." The fact, warranted by the evidence, that the plaintiff suffered injurious effects to her eyes by the administration of ether by the defendant, would not alone warrant the further inference of fault on the part of the defendant in administering the ether. In the absence of expert affirmative evidence of fault in the administration of ether to the plaintiff the basic question is whether the defendant in administering the ether did use the care and skill which the law required.

There is no evidence to show that the mask or cone was defective or inadequate or that the defendant should have insisted upon additional apparatus or equipment. There is no direct evidence to show a causal relation between the acts connected with the administration of the ether and the injury to the plaintiff's eyes, or that those acts were attributable to the defendant's negligent conduct. There is nothing in the record to exclude the reasonable inference that the nurse in pouring the liquid ether spilled ether upon the outside of the cone which found its way to her eyes to their harm. If such were the fact the defendant was not chargeable because the nurse was furnished by the hospital and there

is no evidence that the defendant directed or failed to direct her other than to say that the liquid ether she poured into the cone was enough. There is nothing to warrant a finding that the ether in vapor form got into the plaintiff's eyes through the administering of ether.

Plastic Operation Upon Nose

A young woman was referred to a physician, specializing in plastic surgery, for treatment with respect to a condition affect-

ing her nose.

She had been treated at the X-ray Department of a hospital for a skin cancer of the nose and upon examination the doctor found a large atrophied scar extending over the left side of her nose with a granulating surface near the corner of the eye. He explained to her that a two-stage operation would be necessary to attempt to repair the condition.

He had the patient placed under a general anesthesia and using a diathermy knife cut away all of the affected skin from the left side of her nose. It was intended that a second stage operation should be performed later on by taking a flap from her forehead and grafting it to her nose. The patient remained at the hospital for a week and received the usual ward care. After she was discharged from the hospital she called at the office of the plastic surgeon and requested that the doctor continue his treatment of her as a paying patient. It was explained to her that he could not undertake to treat her in that manner but that she would have to make arrangements with the hospital to continue as a ward patient for the second operation.

The patient became disgruntled and went to another doctor who performed the second stage of the operation and obtained a very satisfactory result. The final result was excellent from a cosmetic standpoint.

The patient instituted an action against the plastic surgeon charging that he had undertaken to perform a single operation upon her and that he improperly performed the same so that it was necessary for her to go to another doctor to have the opera-

tion completed.

The case came on for trial before a Judge and Jury and the plaintiff attempted to charge the defendant both with negligence and abandonment. However, she was unable to present a convincing case and at the conclusion of all the testimony the Judge conferred with the attorneys and suggested that the plaintiff discontinue the action, which was done. The Judge indicated that if the case were submitted to the Jury and the Jury should by any chance find a verdict in favor of the plaintiff he would, under the evidence, be obliged to set the verdict aside.

Across the Desk

The Young Doctor's Temptations

LITTLE DEVILS FILL THE AIR all around us, according to the theology and demondogy of Africa, Asia, and isles of the tropic seas, and who are we to say that the variegated heathen may not be right about it? They may know more about devils than we do. We know, anyway, that temptations assail us on every hand, and if they don't come from little imps whispering in our ears, then where in the mischief do they come from?

To every man come his own peculiar temptations, suited to his nature, and the ones that beset the path of the doctor are different from those that try the souls of other professions and vocations. A good medical man of the Southland, Dr. Wingate M. Johnson of Winston-Salem, North Carolina, is out with a little book titled "The True Physician" (MacMillan), in which he gives a lot of helpful advice to young doctors just setting out on a medical career. Older practitioners may find a reminiscent interest in glancing over the list of temptations which the youngsters are told to avoid, and in remembering how they met them and fought them off.

At the very start, then, the young interne finds his life in the hospital so enjoyable, so full of fine friendships and helpful association with older men that he is tempted to stay on from year to year. The longer his experience, the more valuable he becomes to the hospital and the more he shrinks from the cold plunge into private practice. In fact, "many such men essay timidly to venture into practice for a little while, as a youngster might put a toe into cold water, then recoil violently into the sheltering arms of the first institution that will receive them." Unless the young medico expects to specialize at once in surgery or a special branch of medicine, Dr. Johnson advises that "from one to two years is long enough to linger in the delightful atmosphere of the hospital."

"Deadbeats, Dope-Fiends, and Abortion-Seekers"

Well, the young doctor takes the plunge, opens his office, and awaits the patients.

will they be like? "The first patients," says Dr. Johnson, "are apt to include a tremendous majority of deadbeats, dope-fiends, and abortion-seekers." Here is a situation to try the young man's wisdom and tact. To make enemies of them is undesirable, perhaps, but to grant all their demands would mean disaster. The thing to do is to remember that even such undesirable people "are human beings with feelings and also some influence," and treat them with all the courtesy and consideration possible. At the same time it is best to tell the dope-fiends and abortion-seekers at the very outset "that your professional soul is not for sale." For "with the sort of free-masonry that exists among drugaddicts, to supply one will mean an influx of others; whereas to dismiss the first two or three will mean freedom from molestation by others."

The young woman, married or single, who has missed her period and wants help, will have a wealth of reasons and arguments and perhaps the offer of a fat fee too. Of course it may be that her reasons are valid. "It is true that it is sometimes necessary, for the sake of the mother's health, to interfere with pregnancy. Then it should be done as an open and aboveboard operation, or by radiation, after a consultation with at least one other physician in good standing. Any doctor who will do a criminal abortion for gain is putting himself on an exact par with a prostitute who sells her body for money; he has lost his professional virtue. Sooner or later he will be found out, and then woe is that man -an outcast from his professional brethren henceforth forevermore."

"Law and Medicine See the Worst of Each Other"

The next discovery of the young physician may be that he has certain legal duties. Contagious diseases must be reported, even over the strong pleas and protests of mothers and boarding-house keepers. The temptation is to lend a lenient ear to them, but the doctor must remember that the very mother or landlady who is pleading will lose her

respect for him if he fails in his duty; the facts will come out sooner or later anyway, and the doctor who is on the right side of the law will have no regrets.

More and more the doctors are being called into court, either to testify as experts or to defend damage suits. The depression seems to bring out the wort traits in the greedy, who think they see a chance to sue or threaten their doctors and wring money from them by every legal trick known to shyster lawyers. "Of all the professions," remarks Dr. Johnson, "law and medicine see the worst side of each other." Years after some petty accident case the doctor may be summoned to testify about it and be questioned as closely as if it had happened vesterday. "Here the value of accurate records is apparent, for after the lapse of months or years, it is not safe to trust even the best memory. Your records show the patient's condition at the time of injury, and not as the lawyer and he together much later imagine it must have been."

Two temptations beset the medical man here. One is to embroider the facts in a way to put the best appearance on them. This is dangerous, and may give the hostile lawyer his opportunity to involve the witness in contradictions and lead him into confusion. The other temptation is to lose your temper, which is equally disastrous. A calm sticking to facts, as shown on the record card, avoids them both.

Another bit of advice here is useful. When asked to kiss the Bible, "it should not make you a whit less truthful if you place your hand on it and kiss the back of your thumb instead of the actual book; and will certainly expose you to several million fewer germs."

Certain physicians are sometimes overtempted by big fees to testify for one side in a suit where other doctors have taken equally large fees to testify for the other. The resulting scene in court is most regrettable and brings no credit to the profession. "It is a sad commentary," remarks Dr. Johnson, "that such a spectacle is allowed." "The bigger the reputation of the 'expert,' the higher the fee he can charge; but I wonder often what they can buy one-half so precious as the stuff they sell."

More Whispers of the Imps

The little whispering imps have more temptations to suggest, too, which the young doctor must watch for. He may become a prominent and respected citizen of his town or city, which is excellent, but, if so, he is likely to be asked to run for some political office, which may be a whisper of Satan. People are apt to feel that the doctor on the stump, making political speeches, is not overburdened with practice, and when he goes to the legislature he may come home to find much of his practice gone.

A doctor, too, likes to have people hang on his words of wisdom, but it can be carried too far. The doctor who is perpetually airing his views on public affairs, literature, music, the drama, gardening, golf, bridge, and Wall Street finally creates the impression that he knows more about these things than about medicine.

The doctor's wife, as we all know, may make or mar his success, and a volume might be written on this subject. Dr. Johnson, however, makes but one point: avoid the temptation to talk over the patients' ailments with her. "More than one doctor has lost practice by getting a reputation for discussing his patients with his wife." The right kind of wife will accept this silence loyally. In passing, adds our adviser, "no doctor should marry a woman who is incurably jealous."

A smile will wreathe many a doctor's face as we come to the temptation of the "foolishly sentimental female admirers." are generally only an intolerable nuisance. Yet "the very nature of the doctor's work makes him a natural prey of the softhanded, soft-hearted, soft-headed type of woman who may exist for one thrill after another." The young medical man is seriously warned "never to allow this type of woman to become too familiar," for "as a doctor friend of mine said recently, the public like nothing better than to make a xylophone out of a doctor's reputation, and the most innocent may suffer from the malice of gossip."

Then there is the temptation to let one's soul sink into cynicism at the gross and sordid side of human nature displayed to the doctor; there is the temptation to "please the family" of the patient by lax measures when radical treatment is best; there is the temptation to be overpersuaded by the pharmaceutical "contact man" and the smoothtongued high-pressure stock-salesman.

The Most Insidious Temptation of All

Most insidious and damaging of all is the temptation to overwork and overstrain body and mind, which after all are not made of iron and are hard to bring back after a breakdown. One afternoon a week off is strongly urged, with complete release from medical duty or thought. Brief trips out of town or family picnics are suggested. A wide range of reading is recommended, and from his own experience Dr. Johnson advises a half-hour of non-medical reading every night on going to bed. As he puts it,

"When you come in at night with your brain seething with the problems of the day, and perhaps stimulated by a final wrestle with some disease, the best way I know to shift your mental gears is to sit down or undress and lie down with a friendly book or magazine. Within a few minutes the tension eases, the thoughts become peaceful, and it is easy to switch off the light and go to sleep. Incidentally, a glass of milk and a few crackers at bedtime also help to invite sleep." And, we may infer, all the little demons, baffled, fly up the chimney.

How Smart Are We?

PERHAPS WE ARE HAPPIER not to know some things. We had a rather disagreeable surprise, anyway, a few years ago, when our psychological friends had the bright thought to try an intelligence test on some 1,700,000 men in the army draft as a fair sample of the population. The sad revelation was that, taking us all by and large, we are not much above a 13-year level in brain power. The discovery was at once seized upon by newspaper and magazine publishers and movie magnates to aim at the child-mind thus revealed, and we see the deplorable results in the wood-pulp magazines and tabloid papers splashed all over the newsstands and in the wild and trashy cinema plays and posters.

Another and better effort, however, has been to set the psychologists to making further intelligence tests, recording, classifying, tabulating, refining, in an effort to find facts that will be useful in education, industry and general welfare, and help fit people for their right work and put the square pegs in the square holes. One difficulty has been to find groups of folks willing to take such examinations. Most people are too busy or do not wish to have their mental powers tested. So the psychologists have had to fall back on tests of policemen, firemen, college students, prisoners, inmates of almshouses, etc., all exceptional classes, either above or below the average line. The unemployed submit to intelligence tests if paid for it, but may perhaps not be average in mental caliber.

People Found Who Like Quizzes

A group of Philadelphia investigators, however, have found a supply of human material which is neither above or below

the line, which has plenty of leisure, and which enjoys the quizzes as a welcome pastime. Where are these amiable folks? In the hospitals. Illness happens to all alike, high and low, and as they lie there awaiting the slow processes of recovery, they are glad to show that they can spot as quickly as anyone the absurdity, for example, in the sentence: "You are thin and I am thin, but he is thinner than both of us put together," or "The three men laughed, then stopped suddenly as the eyes of each met those of the others across the table."

Patients in the surgical or orthopedic wards of three Philadelphia hospitals were taken for the tests, and were selected only if the record was free of neurological or mental disorders, and if the physical condition was satisfactory for good work. The investigators were Anne Roe. Ph.D., and Katharine E. McBride, Ph.D., working under the direction of Theodore Weisenburg, M. D., who died before the appearance of the report, entitled "Adult Intelligence," which is published by the Commonwealth Fund in New York.

Their findings are too voluminous and detailed to be even summarized here. In general, their tests, like many others, rate the average adult as about on a level with the school child of 14, but it should be said that the authors and many others object to this sort of classification. An interesting discovery is that the peak of mental development occurs before the twenties and holds fairly steady through the fifties. Another is that formal schooling may not be so important as supposed. An unschooled man of high intelligence will pick up a wealth of knowledge for himself, while a man of low intelligence will get little out

of school and forget that little in a short time. This proves the wisdom of studying the child's mental capacity and fitting his training to it.

The chief point of interest here is the discovery that the psychological members of the profession have in the hospitals a wealth of subjects who would welcome their long questionnaires, enjoy the picture-puzzles and pencil games, and in time give a large enough basis of reports to permit making legitimate conclusions of value on just how smart we are, and why, and what to do about it.

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Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

How to Have Good Health Through Biologic Living. By John H. Kellogg, M. D. Octavo of 498 pages, illustrated. Battle Creek, The Modern Medicine Publishing Co. 1932.

Cloth, \$3.75.

Pediatric Treatment. A Manual of the Treatment of the Diseases of Infants and Children designed as a reference work especially for the General Practitioner and Physicians entering the field of Pediatrics. By Philip S. Potter, M.D. Octavo of 578 pages. New York, The Macmillan Company. 1935. Cloth, \$5.00.

Radium Treatment of Skin Diseases, New Growths, Diseases of the Eyes, and Tonsils. By Francis H. Williams, M. D. Duodecimo of 118 pages, illustrated. Boston, The Stratford Company. 1935. Cloth, \$2.00.

The Successful Examiner. By Dr. Albert Seaton. Duodecimo of 90 pages. Indianapolis, The Rough Notes Publishing Company, Inc. 1935. Cloth, \$1.00.

Recent Advances in Cardiology. By Terence East, M. A. & Curtis Bain, M. C. Third edition. Octavo of 350 pages, illustrated. Philadelphia, P. Blakiston's Son & Co. 1936. Cloth, \$5.00.

The Hair and Scalp. A Clinical Study with a chapter on Hirsuties. By Agnes Savill, M. D. Octavo of 288 pages, illustrated. Baltimore, William Wood & Company. 1935.

\$5.00.

Post Mortems and Morbid Anatomy. By Theodore Shennan, M. D. Third edition. Octavo of 716 pages, illustrated. William Wood & Company. 19 Baltimore, 1935. \$9.00.

The Foot. By Norman C. Lake, M. D. Octavo of 330 pages, illustrated. Baltimore, William Wood & Company. 1935. Cloth, \$4.50.

Manson's Tropical Diseases. A Manual of the Diseases of Warm Climates. Edited by Philip H. Manson-Bahr, M. D. Tenth edition, revised. Octavo of 1003 pages, illustrated. Baltimore, William Wood & Company. 1936. Cloth, \$11.00.

The Next Hundred Years. The Unfinished Business of Science. By C. C. Furnas, Octavo of 434 pages. Baltimore, The Williams & Wilkins Company. 1936. Cloth, \$3.00.

A Yankee Saint. John Humphrey Noyes and the Oneida Community. By Robert A. Parker. Octavo of 322 pages, illustrated. New York, G. P. Putnam's Sons. 1935. Cloth, \$3.75.

The Early Diagnosis of the Acute Abdomen. By Zachary Cope, M. D. Seventh edition. Octavo of 254 pages, illustrated. New York. Outside University Pages, 1925. Cloth

York, Oxford University Press. 1935. Cloth,

The Diagnosis and Treatment of Pulmonary Tuberculosis. A Handbook for Practitioners, A Text-Book for Students, Nurses and Social Workers. By John B. Hawes, 2d, M. D. & Moses J. Stone, M. D. Octavo of 215 pages, illustrated. Philadelphia, Lea & Febiger. 1936. Cloth, \$2.75.

Glandular Physiology and Therapy. Symposium Prepared Under the Auspices of the Council on Pharmacy and Chemistry of the American Medical Association. Octavo of 528 pages. Chicago, American Medical Association.

1935. Cloth, \$2.50.

The Art of Ministering to the Sick. By Richard C. Cabot, M. D. & Russell L. Dicks, B. D. Octavo of 384 pages. New York, The Macmillan Company. 1936. Cloth, \$3.00.

A Textbook of Roentgenology.

Roentgen Ray in Diagnosis and Treatment. By Bede J. Michael Harrison, M. B. Octavo of 826 pages, illustrated. Baltimore, William Wood & Company. 1936. Cloth, \$10.00.

Delafield & Prudden's Text-Book of Path-

ology. Revised by Francis C. Wood, M. D. Sixteenth edition. Octavo of 1406 pages, illustrated. Baltimore, William Wood & Company.

1936. Cloth, \$10.00.

A Manual of the Common Contagious Diseases. By Philip M. Stimson, M. D. Second edition. Duodecimo of 437 pages, illustrated. Philadelphia, Lea & Febiger. 1936. Cloth,

Recent Adances in Medicine. Clinical Laboratory Therapeutic. By G. E. Beaumont & E. C. Dodds, M. D. Eighth edition. Octavo of 450 pages, illustrated. Philadelphia, P. Blakiston's Son & Co., Inc. 1936. Cloth, \$5.00.

You Must Eat Meat. Fancies, Foibles and Facts about Meat. By Max E. Jutte, M. D. Duodecimo of 164 pages. New York, G. P. Putnam's Sons. 1936. Cloth. \$2.00.

nam's Sons. 1936. Cloth, \$2.00.

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REVIEWS

Diseases of the Liver, Gall Bladder, Ducts and Pancreas. Their Diagnosis and Treatment. By Samuel Weiss, M.D. Quarto of 1099 pages, illustrated New York, Paul Hocher, Inc 1935 Cloth, \$10 00

This large volume of one thousand one hundred pages is undoubtedly the most complete and up-to date work covering the subject The arrangement of the material is such as to make it easy to look up exactly what is desired in the shortest period of time While, in general, obsolete methods of diagnosis and treatment have been left out, a paragraph on historical data in connection with each disease is of great interest and value The illustrations have been chosen with great care, diets and prescriptions are conservative and the descriptions of special tests and treatments are instructive. The ninety pages of references cover nearly every important article ever written on the diseases in question, and the index is complete and comprehensive Altogether the work is one which should be of great value to the general practitioner, surgeon and gastroenterologist A. F R ANDRESEN

The American Illustrated Medical Dictionary. By W A Newman Dorland, M D Seventeenth edition Octavo of 1573 pages ohn, W B Saunders Philadelphia, W 1935 Cloth, \$7 50 illustrated Company

We congratulate the author on the thoroughness of the work yet the simple manner in which the newer terminology is explained and definitions given

This is not only a dictionary but a veritable encyclopedia and as the author states he has taken a "middle course between the large, unwieldy lexicon and the abridged students' dictionary, avoiding the disad-vantages of each" The illustrations are excellent and are employed to the best advantage

This work has more than earned a place on your book shelf and will indeed serve as a junior encyclopedia for all branches of medicine SAMUEL ZWERLING

Objective and Experimental Psychiatry By D Ewen Cameron, MB Octavo of 271 pages New York The Macmillan Com-pany, 1935 Cloth, \$3 00 Octavo of

Every physician of any experience realizes how inadequate are most of our methods of eliciting and evaluating facts and symptoms Most of us will welcome any effort at progress along this line

This book is an effort to summirize progress in psychiatry toward observational and experimental methods in "fact finding" Attention is called to the personal equation and other variables influencing interpreta tion The author discusses various observations and laboratory tests in relation to the different forms of mental disease, some of which seem to be opening the way for more fruitful research, not only along psychological lines but in the direction of more purely physical and chemical reactions

Among the subjects he discusses are intelligence, the introvert and extrovert, word association, conditioned reflexes, heredity. statistics, blood sugar tests, ephedrine and adrenalin reactions, respiratory centre in schizophrenia with consideration of the effects of carbon dioxide and bulbo capnine. research in epilepsy, basal metabolism, blood pressure, sedimentation rate-and hemato encephalic barrier, Ph reactions to personality, constitution, pathology, and statistical methods

It is encouraging to see that so much is being done toward correlating the various psycho-biological observations but there is much still to be done The presentation of all these data must represent a great deal of work on the part of the author

A E SOPER

United Atlas of Blood Diseases By A Piney, M D and Stanley Wyard, M D Third edition Diodecimo of 110 pages, illustrated Philadelphia, P Blakiston's Son C 1935 Cloth, \$400

The third edition of this little Atlas of Hematology may be recommended as one of the most authentic and authoritative summaries in the English language. The glossary, the diagramatic sketches of the different blood cells and natural colored photographs are beyond compare

The clinician and the general practitioner will find it a necessary accessory to his armamentarium MAURICE MORRISON

The Doctor and the Public. A study of the Sociology, Economics, Ethics, and Philosophy of Medicine, Based on Medical His tory By James P Warbasse M D Octavo of 572 pages, illustrated New York, Paul B Hoeber, Inc. 1935 Cloth, \$500

It is indeed a large contract, to review a book of this type, containing 572 pages of profound learning and an index, and written by a well known author of acknowledged literary attrimment. His thesis, boiled down to a few words is the inevitable relation of medicine and the doctor to the needs of mankind and the right of the human society, as a whole, to demand the services of the doctor in a form, best calculated to meet its needs for the protection of health and the treatment of disease. Some readers will say that this book is entirely socialistic in its trend, but the careful reader will soon recognize the fact that it contains many postulates, scarcely debatable, which clearly define the mescripible changes, now at hand and coming in the near future involving

the attitude of the doctor towards his individual patient and the community at large. The background for the doctor's argument lies in a delightful, short history of the progress and growth of medicine from prehistoric times to the present. It is a history, not so much of individuals as of the facts, discoveries and struggles which have made medicine what it is today and largely determined the attitude and relationship of the people towards the healing art. The later chapters discuss the cultural side of medicine, the economic questions, interesting to both doctor and layman and definite demands, already being made by the public, for something different from the doctor than what he is now giving. The book reveals much learning, a vast amount of research work and a wide knowledge of social economics. For us all the author has produced a work, both fascinating and illuminating and one not to be neglected by those of us who are actively interested in the solution of a difficult problem, vitally important to the medical profession. The ancient aphorism, "Oh that mine enemy would write a book," does not apply to "The Doctor and the Public."

J. M. VAN COTT

The Oxford Medicine. By Various Authors. Edited by Henry A. Christian, M.D. Originally published in six octavo volumes by the Oxford University Press, New York. Revisions and new articles added from 1923 to 1935.

The original plan of the publishers of the Oxford Loose-Leaf Medicine to supplement, revise and replace various articles from time to time as views changed, has been carried out over a period of years from 1923 through 1935. Each volume has been thoroughly treated in the ways mentioned, modernizing this great system. It is intended to note here some of the changes in the six volumes but these are so numerous that many or most cannot even be mentioned.

In volume 1, L. J. Henderson's article on "The Regulation of Acid-Base Equilibrium" has been revised by J. P. Peters, Frank Billing's "Focal Infection" by E. E. Irons and W. T. Bovie's "Radiation and Its Effects" by George W. Holmes. There are many other revisions and the new articles are those by H. K. Ward on the "Virus Origin of Disease," D. C. Laird on "Work and Fatigue," L. G. Rowntree on "Normal Water Balance and Its Regulation," and G. D. Barnett "Edema of other than Cardiac or Renal Origin."

Edemas discussed in this last one are Inflammatory, Obstructive, Nutritional. Endocrine, Allergic, Trophic, Angioneuro-

tic, Chronic Hereditary and War Edema.
In volume 2, I. C. Walker's articles on "Bronchial Asthma" and on "Hay Fever," are revised by the same writer and some other revisions are S. A. Levine's on "Clinical Electrocardiography," H. A. Christian's on "Purpura" and G. R. Minot's on "Diseases of the Blood." Among the new ones are those of Alexander Lambert on "Angina Pectoris and Coronary Occlusion," W. P. Murphy on "Agranulocytosis" and G. M. Mackenzie on "Paroxysmal Hemoglobin-

One of the most interesting articles in volume 2 is that on "Syncope and Related Syndromes" by Soma Weiss, in which vasovagal, carotid sinus, oculo-vagal, pleural shock and a considerable number of other types of syncope are discussed. It is well to remember this for reference.

In volume 3 some of the new articles are "The Roentgen Ray Examination of the Digestive Tract" by Walter C. Alvarez, "Nephritis in Childhood" by Blackfan and McKhann and "Diseases of the Kidney, other than Nephritis" by William C. Qinby. The other important articles have been revised, including the well known one by Plummer and Wilson on the "Diagnosis and Treatment of the Diseases of the Thyroid Gland."

In volume 4 J. C. Aub has a new article on "Lead Poisoning" and some other new ones are "Industrial and Domestic Gas Hazards" by L. J. Moorman, "Anomalies of Lipid Metabolism" by R. S. Rowland. and "Spontaneous Hyperinsulinism" by Clifford L. Derick. Among the revisions are that of Alice Hamilton's "Industrial Toxicology," Howard's and Mills' "Obesity" and the article by E. T. Woods on "Belliagra" and the article by E. J. Woods on "Pellagra" revised by F. R. Taylor.

In volume 5 O. H. P. Petter has a new discussion of "Trichiniasis," F. R. Taylor one on "Arachnidism," Charles F. Craig one on "Blackwater Fever" and C. Armstrong on "Psittacosis." There are other new articles and some important revisions.

in Diagnosis." W. A. Turner's article on "Epilepsy" has been revised by Cobb and Lennox and A. S. Barnes, "The Myo-Lennox and A. S. Barnes, pathies" by R. N. Ironside.

There are numerous revisions and new articles not mentioned here which with those noted, bring to this valuable reference book, new value and maintain its high reputation in the field of medicine.

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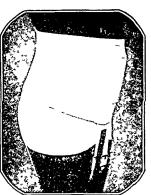
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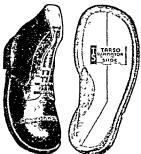
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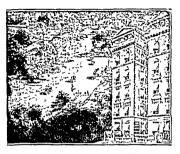
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Travel and Resorts

Germany-'Round About the Olympics

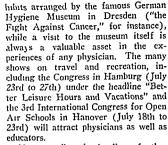
Aesculapius is pointing his snake stick at Germany this year with more than the usual emphasis. The Reich, always of great interest as the classic land of spas and health resorts where the physician can see and study personally what he is prescribing for his patients, offers some very special attractions this summer, in direct or indirect connection with the Olympic Those who have been fortunate enough to secure passes for the games, will witness the greatest spectacle of its kind that has ever been arranged in history. More than 5.000 athletes, representing at least 50 nations, will compete. There will be a greater variety of events than ever, as the International Committee has added several new types of sport to the list of contests. There will be a wealth of art, music, theatre and other offerings which have been included in the

Olympic program in a highly interesting effort to make the XI Olympiad a world festival of

culture as well as of sport.

Quite logically, medical science has its prominent place in this score. The International Sports Physicians' Congress takes place in Berlin from July 27th to 31st, immediately preceding the games. The meeting of the world's specialists for voice hygiene is held after the games, August 20th to 22nd.

and the 3rd International Oto-Rhino-Laryngological Congress from August 17th to 22nd. There are, in other cities as well as Berlin, traveling ex-



Almost endless is the line of other special attractions arranged for this summer. The entire country is included in the idea of "The World's Festive Year in Germany," and from the grandiose Bavarian Alps to the beautiful beaches of the North Sea and Baltic, from Lake Constance and the Black Forest to the picturesque amber coast of East Prussia, there is not a city without an important theatre, music and art program; not a town or village without colorful history plays or folk

festivals, from the famous "Master Drink," in Rothenburg to the amusing "Jahrmarkt" in the village, to which the country folk flock

in their quaint native dress.

There is Bayreuth of course, where the "who is who" in music appreciation meets before and after the Olympics-all programs are arranged so as not to interfere with the great games-and there is the great Wagner-Mozart-Strauss series in Munich, and the Reich

festival plays in Heidelberg. known as "The Bayreuth of the Drama." Munich has its special arts expositions, as have









A visit to the Reich this year promises fascinating interest for the medical profession, professionally and follerwise. (Left) The world's foremost heart research institute is the William G. Kerckhoff Institute in Bad Nauheim. (Center) Badenweler in the Southern Black Forest is one of Germany's famed health resorts (Kight) Beauty features German resorts—landscaped park and monumental architecture of Bad Nauheim.



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many other cities, while international and other important sport events outside of the Olympic Games cover everything from ping-pong and "Schuetzenfest" to the great Kiel regatta and the famous automobile races on the world's largest course, the Nuerburg Ring.

Germany is making it easy to enjoy her unsurpassed scenery, quaint old and great modern cities and the splendid entertainment program. The German Railroad Company is granting foreign visitors a fare reduction of 60 per cent, if they will stay in the country seven full days. For expenses in Germany, "Travel Marks" are available far below the regular Reichsmark quotations. Prices of hotels and all other accommodations have been exceedingly moderate for years, and the Government has seen to it that the influx of visitors during Olympia Year is not taking advantage by boosting prices. Transportation has been developed to the highest possible perfection in all branches. The world's fastest and most luxurious trains and most magnificent automobile roads, the famous Reichsautobahnen, the densest net of airlines and an excellent motorcoach system operated by the Government make travel in Germany as delightful as it is inexpensive. Detailed information and advice on itineraries for Germany are easily available through the German Railroads Information Office at 665 Fifth Avenue, New York City. That office also furnishes interesting illustrated travel hand books covering the various districts of the country and different subjects, such as "Travel" and "Germany-The Land of Healing Spas."

Cod Liver Oil Known Back in 17th Century

Cod liver oil is a somewhat ancient product. As far back as the middle of the 17th century it was known in England as "trayne oyle" and was used probably, in various manufacturing processes. Its medicinal qualities were discovered later. Two of the oldest and best known fishing grounds are the coastal waters of Norway and Newfoundland and considerable quantities of the oil in the early days were landed at west of England ports by boats from Newfoundland. Records would go to show that fish liver oils were exported from Norway to England during the 15th and 16th centuries. Other fishing areas are the coast of Scotland, Iceland, Japan, Siberia and the east and west coasts of North America.

In the early days the oil was obtained by allowing the livers to rot which broke down the cellular sacs, thus permitting the oil which they contained to escape. Today, however,.

steam is used to extract the oil, according to the Industrial Department of the Canadian National Railways. The great value of the oil medicinally is its vitamin content and to secure this, it is necessary to extract the oil shortly after the fish is caught. To accomplish this, some of the fishing vessels are equipped with apparatus to extract the oil.

In Newfoundland, at plants along the coast, the medicinal oil is prepared from the livers of cod caught inshore. Within the past three or four years halibut liver oil has come to the fore due to its high vitamin content. The halibut, like the cod, is a cold water fish, the principal fishing grounds being off the coast of Norway, the west coast of Greenland, the Hebrides, the waters of Alaska, the Pacific and Atlantic coasts of Canada and coastal waters of Japan.

Three Major Festivals in Austria

Official announcement has been made here of the programs of the three major Austrian festivals scheduled for this season. Advance reservations of seats for the three musical festivals and the performances of the "Christus" Thiersee exceed all reservations of previous years and the programs themselves are of unparalleled brilliance.

The Vienna Festival which will open on June 7th will be considerably heightened in splendour by the fact that this year Vienna and Lower Austria will celebrate the 800th Anniversary of Margraf Leopold, the Saint. The ceremonies of the occasion are expected to exceed anything Central Europe has seen since the Jubilee of the Emperor Franz Josef took place in Vienna in 1908.

Bruno Walter, Weingartner and Krips will conduct the Vienna Philharmonic during the festival. Productions of the Vienna State Opera will be carried out by Lothar Walterstein. The repertory includes the opera "Dame in Traum" by Salmhofer which had its successful premiere in Vienna this winter. The "Ring" will be given as will many other international favorites.

The Bruckner Festival at Linz on the Danube will open on July 18th with a serenade in the Landhaus while Keldorfer conducts the Vienna Symphony. July 19th offers Bruckner's Mass in E Minor in the Abbey of St. Florian, where the master worked and a concert in the Marble Hall of the Abbey. On the evening of July 20th Bruno Walter will conduct the Festival Concert. Schubert's Symphony in B Sharp and a Bruckner Symphony will be given. Mozart and Bruckner

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At the Salzburg Festival this season, from July 25th to August 31st Arturo Toscanini will conduct Falstaff, Fidelio and the Meistersinger. Salzburg is now the only place where Toscanini regularly conducts opera. Meistersinger is an innovation on the Salzburg program. Walter will conduct The Corregidor, Don Giovanni, Tristan and Isolde and Orpheus and Eurydice. Weingartner will conduct the Vienna State Opera and the Philharmonic in Cosi fan Tutte and Figaro. Productions will be by Graf, Wallerstein, Erhardt and Salvini. Fidelio will be given on July 25, August 5, 16 and 31; Figaro on July 27 and August 29; Don Giovanni on July 28, August 13 and 24; Cosi fan Tuttle on July 29 and August 25; Falstaff on July 31, August 10, 20 and 26; Orpheus and Eurydice on the 1st and 17th of August; The Meistersinger on the 8, 14, 18 and 22nd of August; The Corregidor on the 11th and 21st of August; Tristan and Isolde on the 27th of August.

The great Reinhardt performances will be given as usual. The two Toscanini concerts will be on August 12th and 28th; the Weingartner concert on August 23rd and the Walter concert on August 19th.

The medieval "Christus" of Thiersee, the only great medieval passion play to be given in Europe this season will take place at Thiersee near Kufstein on Sundays from May to September.

There Go The Ships

At this time considerable interest is being aroused in ships and shipping by the new super-mammoth liner "Queen Mary," which will soon make her appearance on this side of the Atlantic on her maiden voyage. There is something about a super ship which seems always to awaken an intense interest in things of the sea. It was so in the golden era of the sailing ship.

One of the greatest of these early ships was the "Marco Polo" launched from shipyards in Saint John, New Brunswick, in 1850, and considered the fastest ship afloat in her early days, being a forerunner of the famous clipper ship era. She was a three decker of 1600 tons, 184.1 feet in length, and designed for the East India trade. Her dimensions were such that it was decided to await the spring tide before launching. Unable to check her rapid movement when she was sliding down the ways, the Marco Polo ran aground in the mud on the opposite side of the creek and then

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heeled over. Two weeks later she was hauled off slightly hogged but not otherwise damaged. Her maiden voyage was from Saint John to Liverpool, on May 31, 1851, with a cargo made up of timber and scrap iron. Records indicate she made the trip in fifteen days and then returned to Mobile, Ohio, for a cargo of cotton, arriving back in Liverpool after a passage of thirty-five days. From there she went into the Australian trade carrying immigrants from England and made the voyage out from Liverpool in seventy-six days, like time being made around The Horn on her return which earned for her on her arrival in Liverpool the title of the fastest ship in the world. After roaming the seven seas, the Marco Polo came back to Canada to lay her bones on her native soil. being wrecked on the beach at Cavendish, Prince Edward Island, in August 1883 when carrying a load of timber from Quebec. Some relics of the Marco Polo are preserved in the New Brunswick museum in her native city.

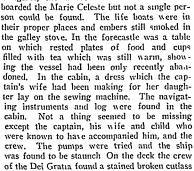
Many other fine ships followed the Marco Polo from Saint John shipyards, the White Star line contracting for four from these yards of six to be built in the province, to carry mails from England to Australia. They were the Ben Nevis, White Star, Mermaid and Shalimar. The White Star was claimed to be the largest merchant ship afloat at that time, being 284 feet in length on deck.

Nova Scotia also contributed some fine ships in the days of sail. One of the strangest mysteries of the sea concerns a Nova Scotia built vessel, the Marie Celeste. Built at Spencer's Island and launched in 1860, she eventually became the property of a United States firm. It was in the year 1871 that she sailed on her fateful voyage, the mystery surrounding which has never been satisfactorily cleared up throughout the years that have intervened and which has been the theme of many stories. On November 1 in that year the Marie Celeste sailed from Boston with a cargo containing a large consignment of alcohol and was manned by a crew of mixed nationalities made up of sailors from the United States, Sweden, Germany, Great Britain and Canada. Of the latter there were only two, one from Nova Scotia and the other a native of Saint John, New Brunswick.

And now comes the strange part of her story. Just the other day there passed away at Rexton, in New Brunswick, a retired sea captain who was in his 87th year and who, at the time, was a member of the crew of the British barque Dei Gratia. While the Dei Gratia was sailing on the high seas in a light breeze, the mate sighted a brigantine with the Stars and Stripes at her peak and all sails set. There was an uncanny appearance about

AAATII

the ship, however, which was heading up and falling off to the wind without, apparently, anyone at the helm, so the master of the Dei Gratia decided to investigate her. Coming up alongside, the crew made her out as the Marie Celeste but not a soul appeared in sight Mooring the Dei Gratia alongside, the whole crew





Music spells Hawait

with silver trimming and red tassels, lying on top of a hatch. The sword was long and tapering such as those once used by French and English duellists but what part it played in the apparent tragedy has never been found out. The master of the Dei Gratia detailed half of his crew to sail the Marie Celeste into Gilbraltar

and when the Dei Gratia reached New York each member of the crew received \$700 as salvage money. The sword remained in the possession of the retired sea captain of Rexton and his family now retains it as an herrloom.

Prince Edward Island also contributed her quota of sailing ships as did likewise Quebec, Eastern Canada having made a name for itself for the many fine slips that came from those shipyards During the War old-time shipwrights again picked up their tools to construct sailing ships to augment the fleets which carried munitions across the ocean.

Today, where once the frames of sailing ships rose from the stocks in Saint John, a huge drydock, one of the largest in the world,



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and steel shipbuilding plant is located, and likewise in Halifax, Nova Scotia, is a large drydock and plant for building steel ships. Another large drydock and shipbuilding plant is located at Quebec.

Wooden shipbuilding is still carried on in Eastern Canada, particularly in Nova Scotia.

Along the southwestern shore of the province where the line of the Canadian National Railways threads in and out of the various picturesque fishing towns and villages, following along the coast for its entire length, and particularly at Lunenburg and Shelburne, one can see fishing schooners being constructed, while Shelburne has also contributed some fine yachts. The present-day shipwrights have not lost the art of their forebears who turned out some remarkably fine and fast ships, the performance of the famous "Bluenose," international fishing schooner champion, which is a product of Lunenburg yards, and the yachts constructed by Shelburne builders testifies.

The Loveliest "Fleet" of Islands

If Mark Twain was not the first tourist to visit Hawaii, he was the first to invent a memorable slogan for the Islands. He called them "the loveliest fleet of islands ever anchored in any ocean." What he said years ago is being appreciated in increasing numbers by tourists today.

Less than 2400 miles from California, the Islands can be reached in less than five days' sailing and as a part of the United States, they offer adventure without the bother of customs inspections, foreign money, foreign postage or foreign languages.

Oahu the island on which Honolulu is located, is the center from which sight-seeing tours radiate. The whole island abounds in glorious vistas of sea and mountain. The two outstanding motor trips are those around Koko Head and over the famous Pali. The beach settlements, Schofield Barracks, largest U. S. army post and Pearl Harbor naval base, the Mormon Temple at Laic, the coral gardens at Haleiwa and Kaneohe, the railroad trip around Kaena Point, and Cooper Ranch Inn, hibiscus headquarters, always attract attention.

In and about Honolulu are the Oriental shopping district, Waikiki Beach, University of Hawaii, Diamond Head drive, the pineapple canneries, Punchbowl crater, the Tantalus drive, Manoa and Nuuanu residential districts, Waialae and Oahu Country Clubs, the Bishop Museum and Oriental temples.

Hawaii largest island, that gives its name

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to the entire group, is dominated by two towering mountains, Mauna Loa and Mauna Kea, both of which rear their summits 14,000 feet above the sea.

Kilauca volcano, in Hawaii National Park. is on the slope of Mauna Loa, while Hualalai, a dormant volcano, rears its cloud-capped head over the island's western section. On the lower slopes of the two great mountains are fertile grazing and agricultural areas.

Leaving Hilo, the motor road leads through Hawaii National Park, across the grotesque volcanic district of Kau, where ancient and recent lava flows have been thrust across the countryside in jumbled confusion, and into luxuriant Kona, romantic birthplace of Hawaii history and legend. In Kona the ancient relics of a bygone civilization are seen by visits to the crumbling heiaus or temples which dot the scenic lava coast. Burial caves, dreamy bays where remnants of the old Hawaiian life remains, coffee plantations, coastal villages, all nestle in the magic serenity of Kona, and center around the delightful Kona Inna modern and thoroughly up-to-date stopping place.

On the island of Maui is the crater of Haleakala 10,000-foot dormant volcano, which can be comfortably viewed from the motor road at the rim. The natural color effects, that tint the walls and cones of the stupendous crater, are sights indescribable, and the view from the summit over the island is one of the most impressive in the Pacific. On clear days practically all islands of Hawaii can be seen from the top of this great mountain.

Haleakala does not dwarf Maui's other scenic beauties. There is a winding motor trip to Keanae Valley, which skirts a jagged coastline through forests of bamboo and other tropical foliage. There is historic Iao Valley, a short distance from the town of Wailuku, where a volcanic freak known as "The Needle" pierces the clouds.

By the schedules of the Matson Line ships, it is possible to make the round trip from California within two weeks, giving two days in Honolulu or longer visits may be arranged outbound on one vessel and returning on another of similar luxuriousness.

Heavy Increase in Motor Tours to Europe

Captain Thor Eckert, vice-president and general manager of the Arnold Bernstein, and Red Star Lines, declared to-day that advance passenger bookings and inquiries from prospective travellers in practically every state in

Public Health and Medicine in Europe!

ANNOUNCING

A Professionalized Tour Specially Arranged for Members of Organized Medicine

Physicians from other states will be admitted, but the tour is open only to physicians and immediate members of their family. The itinerary includes London, Copenhagen, Stockholm, Helsingfors, Leningrad, Moscow, Kharkov, Kiev, Vienna, Prague and Paris. Arrangements have been concluded in cooperation with the British Medical Association, the Czecho-Slovak Ministry of Health, the Medical Center of Vienna, the Soviet Commissariat of Health and with Scandinavian Medical authorities, and the party will have an unusually extensive opportunity to study the most illustrative hospitals, spas and medical institutions en route. There will also be personal interviews and discussions with foreign medical leaders. The party will sail from New York on July 11th, and will return before September 1st.

 For literature and complete information on this tour, please address Department NY-5. A complete program of special EDUTRAVEL projects in other fields, will also be sent on request.

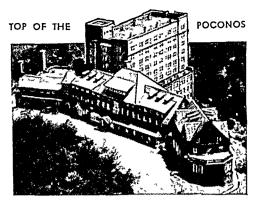
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Tanif Reasonable



JOHN L. HORGAN - MANAGING DIRECTOR

the Union indicate tourist passenger travel to Europe this summer would be heavier than in many years. "And, it is surprising to see how many individual and family groups are planning to tour England and the continent this summer in their own automobiles," he added.

The Red Star Line and Arnold Bernstein steamers operating in the Southampton-Antwerp service from New York are equipped with sea garages, each of which will house several hundred automobiles in well-sheltered tween deck compartments, the cars being loaded and landed in but a few minutes' time by electric elevators aboard the steamers. Seldom is a car even scratched with this modern method of handling, Captain Eckert said.

"Not only are we receiving record passenger bookings to Europe, but according to our European representatives, travel westbound during the usually dull period this summer will be exceptionally heavy with hundreds of European families planning trips to America this year. Many of these, too, will bring with them their motor cars. Our eastbound bookings of passenger automobiles to date is fully 200 per cent higher than at the same period last year, and is increasing daily.

"Many travellers will go abroad in our steamers with their cars to tour Central Europe and England; others have arranged tours to the North Cape, returning to Antwerp by a different route to make the ocean voyage home. We already have automobile parties booked from 42 states, as well as from Alaska and Mexico. Many college groups are expected to add to the grand total of motor travellers to Europe this summer to view the Olympic Games, as this is the most direct and economical method for these young people to tour the Continent to the greatest possible sightseeing advantage."

Captain Eckert declared that the Red Star and Arnold Bernstein Line steamers which carry tourist class passengers exclusively would operate the Red Star steamers, Westernland and Pennland, and the newly renovated Arnold Bernstein ships, Konigstein and Gerolstein, throughout the late spring and summer season on a weekly schedule, sailing from New York every Saturday. Tourist class travel, he said, had become most popular on these vessels, for with no other class of passengers carried, the tourist traveller enjoys the complete freedom of the entire ship, lives in modern outside rooms with hot and cold running water, enjoys every possible comfort and amusement indoors and out, and in addition each ship has a large modern dining room as well as swimming pools—most popular in the summer travel season.

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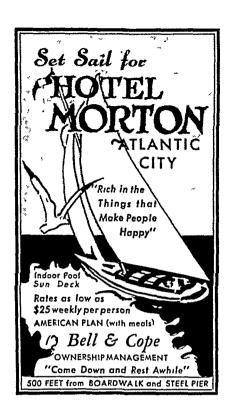


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European Plan

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ATLANTIC CITY, N. J.

It would be well, he concluded, for those anticipating a trip to Europe this year, especially those who plan to take their automobiles with them, to book passage immediately, in order to avoid disappointment later.

Early Summer Cruises to Bermuda

For the many who know that there is really no particular season for a trip to delightful Bernuda—that the "Isles of Pleasure" are as pleasant in May and June, as in December and January—the following scheduled cruises will become a part of their excursion calendar.

The duration of these tours will run from five to sixteen days, thereby filling the requirements of practically everyone. The time is arranged so one may spend from a day to over a week at one of the typically beautiful hotels of Bermuda. Cost per person (two in room at hotel) covers minimum round trip steamship fare and hotel accommodation, American Plan, at the Belmont Manor and the Inverurie. From a minimum of \$68 for the five day trip, the inclusive rates run a varied scale up to the minimum of \$151 for the 16 day cruise.

From New York, Furness Line steamers sail on the five day cruises, May 6 and May 9. For six day cruises May 2 and 16, and every Saturday thereafter until June 15. For an eight day cruise on May 6, nine day cruise May 2, twelve day cruise May 2, sixteen day cruise May 6.

Cruises of ten, eleven, twelve, fifteen and sixteen days' duration, embark from Boston and Montreal on Canadian National steamers, May 9, 14, 23, 27, and June 6.

"Tell"-Open-Air Performances in Switzerland

At Interlaken, Switzerland, where an entire countryside is the stage, during August and (Continued on tage xiv)

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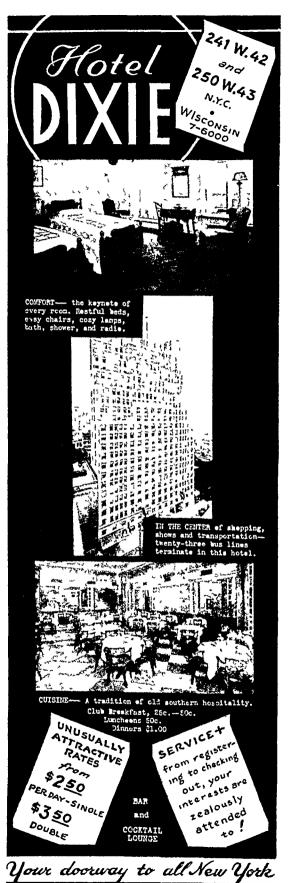


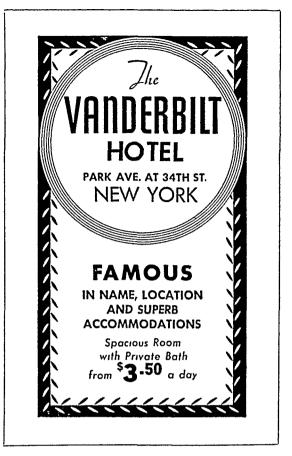
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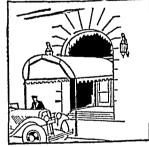




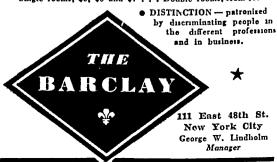
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September if you are fortunate or shrewd enough to be present, you will witness one of the world's truly spectacular open-air theatrical performances.

For "Frs. 3.30" to "Frs. 12.—," depending of course on whether you prefer "I Place" or "IV Place" for scats, you can see "William Tell" as true to life as it is possible to make it in reenactment.

On the stage, nature and art are so closely blended as to form one harmonious whole. There is no paltry paper scenery, but real trees, rock, turf, soil, and air. Real buildings, architecturally correct, and corresponding with those of ancient-historical Central Switzerland

The large stage affords ample space for the 350 actors in the folk-scenes, as well as for the well-fed cattle returning from alpine pasture grounds, and for the huntsman on horse-back. Scenes such as you will see, if you are there, are not possible on an ordinary stage—or in even the largest American showplace.

The rural scenes represent the real life of mountain herdsmen in centuries gone by. The fine costumes were all designed by the late Rudolph Münger, well known Swiss master of heraldry and were made with absolute historic accuracy by Kaiser Ltd, at Basle.

The auditory is covered, and all the 2,000 scats are numbered.

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There are promenade decks, beautiful lounges, and even a sports deck usually sporting several shuffle-board games.

There's everything but a berth for the landlubber sailor-and with just a wee bit o' imagination even that is provided, for the elevator "gangplank" doesn't leave you too far away from your comfortable hotel room on the nth floor (pardon-we should have said "deck").

Travel Brevities

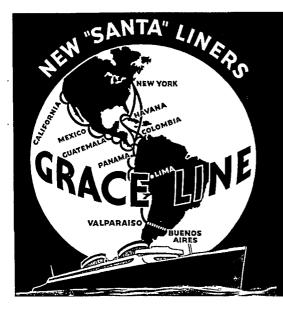
GUESTS of the Belmont Manor and Golf Club in Bermuda recently, included Dr. Chas. T. Hazzard of New York, Dr. S. H. Hazard of Rhode Island, and Dr. Carl E. Parry of Washington.

A NATIVE East Indian medical journal reaching this office carried a full-page advertisement of a charm that "secures employment to the unemployed," gives "success in lawsuits," "realization of your fondest dreams of love and marriage," victory over enemies," "sure relief in chronic diseases," and "bodyguard against dangers, accidents, witchcraft, etc." The price varies with the number of the above items covered by the charm, ranging from \$10 to \$50.

AMONG THE "RESTERS" at the Hotel Bermudiana in Bermuda, we notice the following: Dr. Robert Maynard of Vermont, Dr. Ernest Charron of Montreal, Dr. J. E. Chickering of New Jersey, Dr. J. Stratton Carpenter of Pennsylvania, Dr. J. J. Driscoll of Connecticut, and the following New York physicians-Dr. Thomas J. Baker, Dr. R. H. Honsberger, Dr. A. S. Blumgarten, Dr. A. H. Hausen, Dr. S. S. Carlino, and Dr. F. R. Webber.

IT WAS CAPTAIN SHREVE, in the early days on the Mississippi, who gave us the word "stateroom." He was the first to put wooden partitions between sleeping quarters on river

(Continued on page xlviii)



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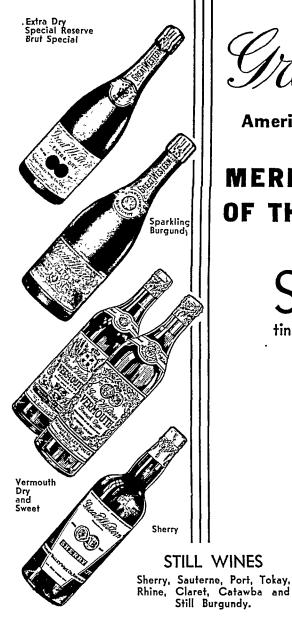
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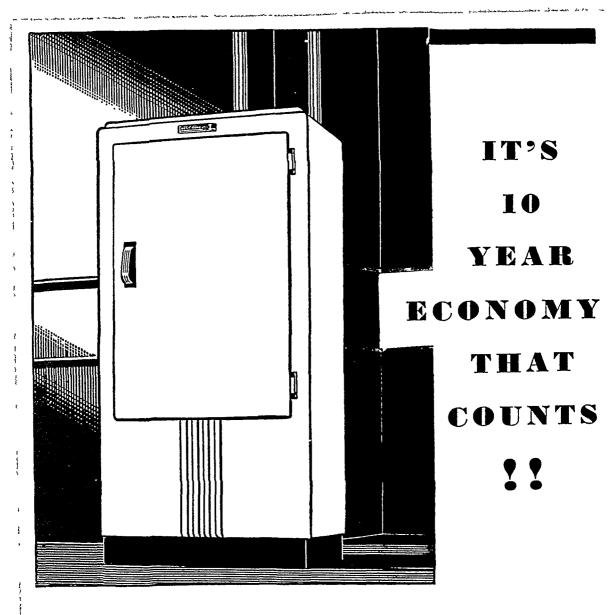
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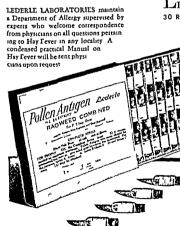
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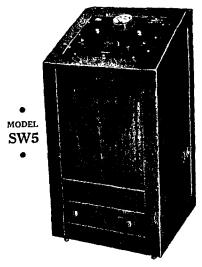
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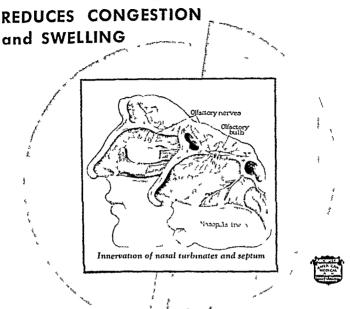
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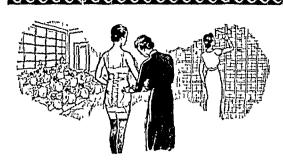
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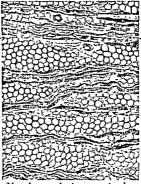
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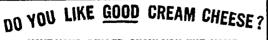
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REFERENCES:

Kugelmass, Clinical Nutrition in Infancy and Childhood, Lippincott. Marriott, Infant Nutrition, Mosby. McLean & Fales, Scientific Feeding in Infancy. Lea & Febiger.

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THE STUTTER-TYPE PERSONALITY AND STUTTERING

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The stutter-type personality is a chronic hesitator coming from neuropathic stock, demonstrating neuropathic tendencies.

A person may not show that specific sort of hesitation we call stuttering,* but still belong to the large group of people which comprises the Stutter-Type.** His personality, like that of all other individuals, depends upon the constitutional make-up of his nervous system. According to Dr. Pavlov, nervous systems can be classified as strong, moderately strong, and weak, in terms of excitation and interruption of psychomotor function. These interruptions are the result of uncontrolled reaction to irrelevant stimuli. The highly excitable organism lacks the ability to exclude irrelevant stimuli while responding to the stimulus proper.

The stutter-type, on account of his nervous make-up, forms part of the group of strongly excitable individuals, those who show a marked combination of the ltarmful effects of excessive excitation and interruption. Their mental and physical activity is disturbed and inhibited because of uncontrolled reactions. An individual belonging to this group may be said to stutter in more ways than in speech.

In our work at the National Hospital for Speech Disorders we have treated people who stuttered playing musical instruments, for example, becoming stuck on a note on the piano, as a stutterer to a word, those who stuttered on the violin giving a spasmodic repetition of notes; those who make the typewriter or linotype machine stutter, and others who demonstrate their hesitations in such acts as dancing, golfing, driving an automobile, etc. I am sure everyone has observed stuttering automobiles, the driver imparting his own spasms to the machine.

The stutter-type hesitates chronically. Although intellectually and physically on a par with the rest of mankind. emotionally he is victimized by an instability which makes a rationally ordered life impossible. Instead of proceeding on his business efficiently, like a well-oiled mechanism, with an adequate margin of strength for emergencies, he is constantly being thrown out of gear by a series of emotional shocks. Although many functions of the human mechanism may show the result of this deficiency of emotional integration thru hesitancy, caused by a partial or total blockage of activity, it is only when speech becomes involved that we really notice the trouble and designate it as stuttering.

A stuttering individual is usually un-

* Stuttering and stammering are often used interchangeably, but according to derivation, stuttering stands for labored, difficult, hesitant speech with resultant defective conversation Stammering refers to defects of articulation and should never be confused with stuttering. Stammering depends on performance, stuttering depends on emotional disturbances. Technically, stuttering is known as "Dysphemia" or wrong speech, while stammering is known as "Dyslalia."

** The term "Stutter-Type" was first used by the author in a paper read before the New York Neurological Society at the New York Academy of Medicine, Dec. 4, 1934. "Treatment of the Stutter-Type Personality in a Medical-Social Clinic."

Read in part before the Open Forum of the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1936

able to say words or phrases without hesitating and becoming emotionally aroused. His speech is characterized by tonic and clonic spasms of the vocal tract.

Whatever form or style the stutterer's hesitation may take does not alter the fact that he is a stutterer. He may have a tendency to repeat letters, syllables, or words, he may puff and blow, he may contract his jaws and not be able to start speaking, he may try to talk on his inspiration or introduce various forms of bodily movement with his speech, etc.; but no matter what muscles are involved -face, lips, throat, chest, abdomen, diaphragm, etc.—the fact remains that it is difficult for him to carry on a conversation, not because of defective enunciation, but because of hesitations, conditioned on certain states of mind in the form of emotions, feelings, or attitudes.

Many theories have been advanced to explain the difficulties which beset these stutter-type individuals of neuropathic stock who demonstrate neurotic tendencies. The conception we advance stresses the role played by primitive emotional reactions, especially fear and allied emotional states, setting off the tendency to many hesitating acts. This is particularly so in such a symptom as stuttering. It is the neurotic mechanism converting the psychic conflict into a physical symptom.

Since emotion is fundamental to our problem, a brief outline of its development and function may be necessary.

Life, for our savage ancestors of prehistoric ages, was not as it is for us, a routine of planned work, orderly pleasure, and many emotionally neutral social contacts. It was a life of apprehension, in which anything unexpected was liable to be a crisis necessitating decisive action. The savage's range of physical activity was wider than ours. He needed a special source of energy for emergencies, because his emergencies could only be solved by sudden physical action, and emotion came to his aid as a quickly induced state of preparedness. In emotion, breathing and heart-beat are accelerated, increased secretion of adrenalin steps up the activity of the entire muscular system, the whole organism is brought into a condition eminently suited for fighting or running away, in short for self-preservation.

Allied to these positive physiological manifestations are certain economies of the body in the emotional state. Some activities are temporarily inhibited because they would use up energy unnecessarily; for instance, the blood-supply of the digestive organs is diminished, saliva stops flowing; and for us the most important fact is, that mental activity of the higher more integrative kind, is inhibited.

Physiological psychologists, such as Cannon¹ and Crile,² had tried for a long time to find physiological states changes in the body which they could correlate with the many "emotions" which the psychologists thought they had been able to find in the mind, but without success. There is only one "emotional state," which we have already described. The trouble with "lists of fundamental emotions" published by various psychologists, lies in confusion between an energy and the forms it may take; for example, what is the use of considering the electric light, radio, x-ray, and all the other electrical contrivances as different sorts of energy when they are only transformations of the same fundamental electrical energy into more familiar forms.

We must learn to separate an energy from its manifestations; we must learn to separate emotion from the various mental states which constitute its manifestations. We have an almost infinite variety of mental states, almost as many as we have memories. Some of them are particularly strong at a given moment, because there is more energy flowing thru them, more "emotion." They may be anything from the memory of a recently deceased relative, reminding us of the limits of our existence, to a beautiful picture or work of music, reminding us of the unattainability of the perfection they suggest, while yet they demonstrate the height we humans have reached. Always however, there will be demonstrable in any emotional state, besides other things, either a trend toward a feeling of superiority or toward one of inferiority, which is the remnant of the two ways in which the preparedness state, the "emotion" of the savage, found outlet. He either stood and fought, or ran for his life. His emotion. either took on the specific guise of rage, satisfactory ability—pleasure, or it became fear, unsatisfactory ability—pain. In our own day also, if a man in a state of emotion recognizes himself as able to cope with a situation, as superior, we get the picture of reinforced superiority or "rage." If however, he feels inadequate to handle the matter, we get the picture of reinforced inferiority, or "fear.' To put it epigrammatically:—

EMOTION + SUPERIORITY = "RAGE" EMOTION + INFERIORITY = "FEAR"

Either rage-activity or fear-activity got the savage out of his predicament. Both led to direct physical action. In our present day society however, neither one could lead to anything but trouble. Our world offers no outlet for extreme emotion, except by means of useless, morbid, or fatal behavior. For example, in the case of the stutterer, his useless emotional upset is decidedly detrimental to his well-beingthe automobile driver (as shown by Dr. Henderson*) when started mentally or jolted goes out of control, and while trying to steady himself presses on the accelerator pedal thereby increasing the speed of his car, often with fatal resultsthe novice aviator "freezing" to the controls of his plane, holding on to them for dear life although it means destruction. In both cases it is the operator who "goes out of control, not the machine." These are examples of the deleterious effects of extreme emotion. In fact, we might say that today extreme emotion assumes the form of a vestigial appendage, like the thymus in the adult or the veriform appendix to the cecum.

There is a normal range of emotion between mere neutrality and a state we might describe as "pleasant excitement," within which we should try to remain. It

* Prof. Yandel Henderson of Yale University in a paper read before the National Academy of Sciences, Nov. 18, 1935 entitled "How cars go out of control: Analysis of the Driver's corresponds in a way to the state of excitation of our muscles called "tonicity.' without which our bodies would be limp and unable to stand erect. People who live within this range react to their environment in a lively healthy way, while people who stay under it are lifeless, dull, uninteresting, lacking in personality. course a crisis in either of these types calls out extreme emotion, but whereas the normal person is constantly active and accustomed to finding ways and means of overcoming the difficulty and putting his emotional energy to work, the "low-E" person not alone has less energy to start with, but also lacks practice in meeting his difficulties, and therefore his emotion has a tendency to overshoot the mark, becoming a violent and uncontrollable wrought-up condition. This is the picture of the stutter-type personality, in whom the emotional crisis is a chronic affair.

Speech is our most recently developed and most complex finely balanced muscular activity, unperformable during periods of intense emotion. The ability to speak, as we all know, is the result of training. The neuromuscular activity or coordination which produces speech is of a very complicated nature. Many nerve areas and muscle groups, both large and small, must work in perfect harmony. Quick reaction time and coordination are developed by long practice in the use of the speech organs. Constant repetition of the process of speech has developed the nerve paths and muscle responses to the stage where the action appears like a reflex, like the winking of an eye. Now, when an individual is in a storm of conflicting emotions, lines of communication are broken and the misdirected nerve messages become delayed or diverted. Most of us at some time or other have experienced the distinctly unpleasant condition of speechlessness due to emotional turmoil. If we realize that the stutterer is in just such a state many times a day, our fundamental problem becomes clear.

Emotion is the body's response to the recognition that a crisis is impending. The stutterer is a chronic sufferer from emotional shocks due to recurrent speech crises.

The question arises whether ordinary situations should be critical situations in his case. The answer is that his activity

out of control: Analysis of the Driver's Reflexes."

"The automobile driver when startled mentally or jolted goes out of control submerging his conditioned reflex built up by driving a car and demonstrating his instinctive self-righting reflex which was excited thru the sudden disturbance of equilibrium. Besides the impulse to steady himself he simultaneously performs another instinctive act as part of the same nervous muscular complex. He forcibly extends his legs causing his feet to press hard on the accelerator pedal thereby increasing the speed of his car with fatal results."

depends on an aroused state. A surge of emotion goads him out of feelings of depression and inadequacy which may in fact, have only a slight basis, but seem very real to him none the less. He starts acting and talking, but is forced to stop almost immediately. True, this surge of energy almost unconsciously produced, helps him to attain the "fighting pitch," lifts him out of his introverted quiescent condition. But the activity people expect of him requires only a minimum of physical effort in spite of the fact that it includes the most complex set of exactly coordinated neuromuscular adjustments ever demanded of anyone. So, although he lacks a well-trained neuromuscular organization, he constantly tries to produce the split-second response that he sees in the normal speaker. If he cannot produce speech spontaneously he often flies into a panic which further demoralizes his speech faculties. In his aroused state, adjustments are out of the question. for emotional stimulation cannot be reversed or adequately used once it has gone beyond a certain point, depending on the degree of the development of the individual's expressive functions. therefore unloads his surplus emotion in various ways, as thru peculiar bodily movements, spasms of the musculatures involved in speech, tenseness thruout the body and a general feeling of unbearable anxiety culminating in fear. Exhaustion follows and with it a depression, which again makes overstimulation necessary, and thus a vicious circle is instituted.

That a general predisposition toward emotional instability can be traced in the family of the stutter-type has long been an acknowledged fact. Of over a thousand patients who have been treated in the National Hospital for Speech Disorders during the last year (1935) forty per cent had stutterers in their immediate family, and over one-half gave a definite history of nervous instability in the family. A child of such a family does not necessarily inherit stuttering as such, but belongs to the stutter-type and inherits peculiar neuropathic tendencies, a general instability of the nervous system which predisposes him to stuttering.

A more specialized inquiry into the genesis of the general instability, which makes the stutterer susceptible to the vicious circle of emotional excitement and

depression, reveals the significant part played by this parental neuroticism. We all know the type of parent, especially the mother, who quite often is "on edge," who breaks out and scolds her children, who shows a tendency to nag, to be tense, yet who may for all that, be intelligent and seemingly healthy. Theoretically we all realize the burden which is placed on the child of such a parent. Handicapped on the one hand by an hereditary legacy from a nervous and unstable parent, and on the other by an environment colored by this same unstable parent, it necessarily follows that the already troublesome difficulty is reinforced and accentuated. The child is thus not in a curative environment, not even in a neutral one, but in one definitely detrimental along the lines of its own deficiencies.

However, tho it is true that the parents of the stutter-type generally exhibit "nervousness," hyperemotionality, or peculiar behavior of some kind, when we try to seek some specific determinant of stuttering itself in the parental background, we find that the family pattern of the stutterer might just as well be that of a juvenile delinquent, a neurasthenic or psychotic. It therefore devolves on those who try to trace the genesis of stuttering out of a general background of instability, to also show to some extent why this background did not lead to any of the troubles mentioned.

It seems evident that the nature of the disorder passed on from parents to children, which leads to such difficulties as stuttering, is only to a very slight degree some specific organ weakness or inferiority. The chief factor in evidence is the disturbance of some stabilizing mechanism of the organism which, while functioning properly, keeps the individual "hewing to the line" of normal behavior. This mechanism is akin to the growth-regulating function of the pituitary body,* which

^{*}As Dr. C. I. Stockard of Cornell recently pointed out in a paper read before the National Academy of Sciences on Nov. 18, 1935 at the University of Virginia, that when the growth-regulating pituitary gland is not functioning properly, members and parts of an organism will not be correctly proportioned to one another. In his experiments he found that one part of an animal might follow one pattern, while the rest followed another, so that there is a discrepancy in physical proportion, just as in the stutter-type there is a discrepancy in emotional balance.

probably has its seat in the thalamic region of the brain and is liable to perturbations due to emotional shocks of the extreme kind, and to hereditary weakness, which may be the result of the upset of the chemical and mechanical equilibrium of the body and be of glandular origin.* Possibly this stabilizing mechanism has become atrophied in modern men due to disuse. In other words, we assume that in the stutter-type there is present some somatic deviation from the normal, but so slight that no one has been able to isolate and define it, even tho it necessitates some functional compensation.

Although we are still far from understanding the actual anatomical mechanics of emotional balance, there is evidence of its being largely contingent upon the balanced opposition of the parasympathetic and sympathetic divisions of the autonomic nervous system. The former superintends the "peace-time" organization of the individual, the latter his "war-time" organization. The stutter-type person shows dominance of the parasympathetic system on the whole. He is peaceful, uncombative, avoids competition. Possibly he is the result of long continued dormancy of self-defense emotion in himself, resulting from long continued dormancy of fighting and competing emotions in his ancestors. This factor has in all probability led to a certain degree of atrophy of that part of the nervous system controlling the body's fighting organization. But in order to meet the demands of environment the individual must organize himself on two different planes or suffer defeat everytime an emergency arises. Most people blunder when thrown into strange situations that require quick action, but the stutter-type especially so, because of his high emotional tone. His marked nervous excitability and his emotional stress, as a system of tensions and chemical changes in the blood plasma, interferes with his ease and harmony. Any stimulus is liable to set up a break in rhythmic manifestations so that his inner and outer rhythms fail to harmonize; and no matter what he attempts to do, speech included, it is poorly executed. The rhythm of the stutterer's body governed by the opposing forces of the autonomic system is destroyed as soon as he ventures beyond a low peace-time level of activity. The normal person when overactive tends in the direction of sympathetic dominance. The stutterer's overactivity tends in the direction of still further parasympathetic dominance, or uncontrolled spasmodic dominance.

The respiratory tract is innervated by the parasympathetic division. Its neuromuscular balance, next to the cardiovascular system, is more readily upset by emotion than perhaps any other organ system. The stutterer has never had enough practice in counteracting sympathetic influence during stress, thus he is usually rocketed to temporary manifestations of hypersympathetic dominance: quently, the stutterer, although a parasympathetic type having a pale mucous membrane, readily demonstrates during the stress of examination, a change to sympathetic dominance with its attendant mixed or red mucous membrane. There is a continued conflict going on within him between the parasympathetic characteristics he possesses and the sympathetic characteristics.

In all probability this is due to the fact that he is a cross between a sympathetic type of father and a parasympathetic type of mother, or vice versa, thus creating a combination of the two with each system striving for dominance. His natural status should be for a maximum level of parasympathetic control thus repressing the turbulent manifestations of the sympathetic.*

Granting the disturbance of this controlling mechanism in the stutterer, the question naturally arises as to how such an individual can be relatively normal outside of his stuttering. Why does he not show the same emergency reaction in all

^{*}Dr. Roy R. Grinker of the University of Chicago in his recent book Neurology points out, that the emotional pattern or quality of sensation is a thalamic function, and part of the personality may be a quality derived from the thalamus.

^{*}This fact was demonstrated when Dr. Jarvis' of Vermont, who for years has made extensive research studies on characteristics of the autonomic nervous system, recently visited our Clinic, and was kind enough to examine 30 adult stutterers (ages 18 to 30 years). He found half of the group were pale mucous membrane individuals, while in the other half, under the stress of examination, the direction had shifted to the mixed and red type of mucous membrane.

kinds of situations? The answer seems to be that the person so afflicted resorts to specialization in order to achieve relative stability in every-day life. He picks on one certain sphere of physiology in which to display his helplessness. Thus his stuttering becomes an expression of an inferiority which is really much more general, which in fact, would normally involve speech only to a very slight extent. Also, he makes it possible for himself to lead a fairly normal life socially in a smaller sphere. A kind of biological conscience comes into play, a will to unity and normalcy imbedded deep within the organism which may be driven to retreat by the exigencies of bodily or mental inferiorities, but which tries to consolidate the normal remainder of the organism into a smaller but normally functioning unit. The process by means of which the stutter-type, abnormally set back by the impact of social life in early childhood, tries to limit his social environment by means of his stuttering, is of course, no more "conscious" than is the growing of a claw by a lobster, but the underlying will to unity of the organism is the guiding factor in both cases.

Recent investigations tend to show that whenever some defect (whether consciously recognized or not) confronts an individual, two distinct means of meeting the situation present themselves, the one to be followed depending on inherent constitutional factors. Either the entire personality must be diminished to meet the level of the weakest aspect, or else the weakness must be bottled up, as it were, in a "symptom," while the rest of the personality goes on as before, tho often stumbling over the symptom. Our stutter-type generally belongs to the so-called "asthenic type" whose physique has been reduced in a multitude of particulars to provide, one might say, a normal environment for some constitutional defect. Emotionally he exhibits a tendency to introverted states of mind. We cannot say however, that the stutter-type belongs wholly to the asthenic (introverted) group, for his behavior in many ways approximates that of the pyknic (extraverted) group. It is only one factor of his personality, that which finds its expression in speech, which is introverted. He belongs then, to a special group.

Many children during their first exciting years of oral expression are often prone to overstimulation under excessive adult pressure, so much so, that they actually work themselves into a disorganized mental and physical state. They literally wear themselves out by their incessant talk, so that they often lose control of the mechanism of the vocal tract, with resulting hesitations. The preschool stutter-type child with his neuropathic diathesis has more difficulty in learning speech than other children and in suppressing unnecessary infantile nonspeech movements. This type shows a distinctly lower grade of psychomotor efficiency, with its accompanying functional disturbances, as the result of poor psychosomatic interrelationship. His conditioned speech reflex, being unstable, is not a fixed response and thus severe shock subjects him to the influence of inhibition.

Many a mother wonders why one of her children outgrew these manifestations and spoke normally, while in another the trouble persisted. Since children vary markedly in the vulnerability of the speech apparatus, evidently the latter was a stutter-type child, his mechanical disability and poor habit formation did not allow his speech to develop normally; it did not become a fixed conditioned reflex. Aside from this, no doubt there was inherently greater difficulty in surmounting environmental stresses—mental unrest with its anxiety, worry, and fear.

Periods of unusual environmental stress occur several times in the life of the individual. The first occurs in child-hood, generally around the time the child goes to school, and consists of the impact of social life with the comparisons of one's self with others of one's own sex and age which it involves. The second period, in adolescence, is due to the impact of the whole complex of sexual facts on the as yet unprepared young person.

The genesis of the stutter-type most often occurs during the first period of stress, either on account of the underlying neuropathic diathesis or of both hereditary and environmental factors combined. Excessive difficulty in meeting the demands of the second, mainly sexual, period of stress engenders neurosis. Later on, during maturity, a third period of conflict occurs in which the main factors

are internal, a conflict between the egotistic will to power of the individual and his perception of the crushing ruthlessness of eternal natural laws as expressed

by the aging of the person.

Each of these three periods is characterized by a change of emphasis. The child begins by taking his school-fellows, representing society to him, too seriously. Later, he lays undue weight on sexual matters, becomes more or less obsessed by them; there occurs a narrowing down from society to one person, the loved one.

Finally, importance is shifted from people altogether, and one's relation to universal laws of some kind becomes an important factor in life. In case of total failure in this adjustment, psychotic conditions are the result. However we are mainly concerned here with the sort of personality which is the result of failure to surmount the first hurdle in this development. That personality is the stutter-type because stuttering is the typesymptom of his condition of chronic hesitancy. It is his primary reaction to social conditions and must not be confused with the usually following secondary manifestations of the neurosis. This develops much later and is a disturbance in the field of personal relations.

There has been in the past a good deal of vague comment on the "neuroticism" of the stutterer. It has of course always been possible to perceive in him a basis of emotional pecularities, but the why of the actual conversational difficulty escaped detection amid a welter of general remarks. If stuttering were merely the symptom of a neurosis, why is it that when alone the stutterer is able to talk? Why can he talk under certain conditions and not under others? We have all been under the domination of psychoanalytic theories of neurosis with their aura of conviction that mental troubles are the result of obscure "deep-seated" conflicts of some sort, meaning by deep, sexual. The extreme exponents of the Oedipus complex, the psychoanalytic school, made the fundamental mistake of attempting to explain purely social conflicts sexualistically or else ignored them altogether. The failure of the psychoanalytic treatment of stutterers proves that the type of adjustment it affords to a single person who serves as an intermediary or bridge to others, is not adequate for the stutterer. The neurotic must develop contact with the individual person; the stutter-type on the other hand must develop contact with the group. We are dealing with a condition which is social in origin and needs treatment of a social nature, such as is afforded in our own medical-social clinic.

Realistically considered, the first actual difficulties a child encounters are those met with when he goes to school for the first time. We call this the social impact. The sort of primary sexual conflict the orthodox psychoanalysts postulate as appearing in the mind of the infant cannot occur at that age because the child is still actually a part of his parents, accepting everything coming from them without criticism or thought, and is himself accepted more or less completely by his parents, hesitating talk and all. Only when the child goes to school does he meet with nonacceptance, criticism, competition; and the competition is keenest in a field where to the unobserving eye it is hardly even discernable. I mean the field of speech, a field in which if he belongs to the stutter-type he is already inclined to be oversensitive. Besides that, the child has not yet developed an excusing apparatus for himself which will furnish his ego with compensations for his failures. He either can do a thing as well as others, or he cannot; and if he fails he not alone receives no mercy at the hands of young fellow-barbarians but is more cruel to himself than the adult would be.

If then, the "social-impact" proves insurmountable and the child cannot cope with his social environment, he must and will develop a symptom, if he has not already done so, which is also an expression of his failure and a means of escaping the conditions leading up to it. This symptom is stuttering. It shields him from people. He has embodied his feeling of social inferiority in a process which will cut him off from the possibility of social success, it is true, but also from the possibility of real utter failure. A state of tentative equilibrium is thus attained. We may surmise that, other factors remaining the same, the loss of his stuttering would make life even more serious for him.

Let us now see how some well-known facts fit in with the view of stuttering

DIAGNOSTIC SIGNIFICANCE OF PAIN

Frederick J. Kalteyer, M.D., Philadelphia, Penn.

Clinical Professor of Medicine, Jefferson Medical College; Attending Physician to the Philadelphia General Hospital

By common consent, pain is assigned to the front rank of diagnostic symptoms. Because of its import and frequent occurrence in a large proportion of ailments, it constitutes the chief criterion in the solution of many clinical problems, especially when evaluated with concomitant phenomena. In certain disorders it is the only guide to their recognition. The quality and intensity of pain are determined by individual peculiarities and the nature of the pathological lesion. Since pain depends on consciousness, its degree varies with the alertness of the sufferer. It is impaired or even wholly abolished in somnolent, stuporous, or comatose states from toxemia, and in constitutional disorders characterized by pronounced weakness, as shock; it may be intensified by mental and emotional excitement from fear, fright, and anxiety. Some individuals possess an excessive susceptibility to pain, while others seem to be quite immune. The neurotic and sanguine constitutions are more readily affected than the phlegmatic. Prolonged suffering and recurrence of painful sensations augment this symptom, while hardship and exposure, especially in uneducated persons, dull this sensation. There are differences in pain susceptibility due to racial peculiarities; Anglo-Saxons and Orientals, as a class, are apathetic when contrasted with Latins and Hebrews.

Pain varies greatly from trifling discomfort or sub-pain, to intense agony so great as to cause death. It is an aid in detecting both minor and major disturbances, and frequently is the first sign of injury or disease, occurring long before structural changes in the tissues can be recognized by physical signs. By its characteristics, the nature and onset of a pathological process may be suggested, as displayed by the excruciating general abdominal pain of a perforated gastric ulcer. Its location gives information of

the site and the spread of a morbid process. Its character and behavior may indicate the type of structures or tissues involved by the disease, as the dull paroxysmal and poorly localized abdominal pain of intestinal colic, or the sharp accurately placed pain of pleurisy or peritonitis. Its relation to certain functions may point to the organ affected, as the association of pain with gastric digestion, or its relief by taking food, or its appearance on defecation, urination, deep breathing, or exertion. Movements of the body generally intensify, while rest eases most pains, although in abdominal colic, the patient may roll about the bed and press upon his abdomen to get relief, while in angina pectoris, the symptom may develop suddenly during sleep. The influence of atmospheric conditions as a change in weather to humidity or rain, may precipitate a neuralgic attack, or fair weather may bring relief.

The effects of pain are as significant in diagnosis as the symptom itself. The pain producing stimulus may directly or indirectly disturb other functions. Pain is a warning signal of bodily injury or disease, often termed a defensive or protective mechanism. Through its secondary influence, it is frequently attended by such harmful effects as nervous or emotional dyspepsia, vomiting, general weakness, shock, heightened blood pressure, glycosuria, hyperglycemia, and sweating. Physiologists have advanced satisfactory explanations for most of these perturbations which should receive careful consideration by the physician, when appraising the results of a pathological disturbance. This short discourse will be devoted to a consideration of pain itself and not to its attendant phenomena.

Although the clinical interpretations of pain are of great service in the diagnosis of a large group of disorders, we must

admit our disappointment in the failure of this symptom to localize accurately and

are internal, a conflict between the egotistic will to power of the individual and his perception of the crushing ruthlessness of eternal natural laws as expressed by the aging of the person.

Each of these three periods is characterized by a change of emphasis. The child begins by taking his school-fellows, representing society to him, too seriously. Later, he lays undue weight on sexual matters, becomes more or less obsessed by them; there occurs a narrowing down from society to one person, the loved one.

Finally, importance is shifted from people altogether, and one's relation to universal laws of some kind becomes an important factor in life. In case of total failure in this adjustment, psychotic conditions are the result. However we are mainly concerned here with the sort of personality which is the result of failure to surmount the first hurdle in this development. That personality is the stutter-type because stuttering is the typesymptom of his condition of chronic hesitancy. It is his primary reaction to social conditions and must not be confused with the usually following secondary manifestations of the neurosis. This develops much later and is a disturbance in the field of personal relations.

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expressed above. The very early incidence of this trouble, occurring as it does most generally at the time the child first goes to school, bears us out. When it is not actually school life itself which brings on the first signs of stuttering, it is an analogous situation involving competition with other children. If stuttering were just a neurotic condition with its background of regression to an infantile neurotic state, more cases would give the onset as occurring during their high school or college periods. It would also be more prevalent. For our vast army of real neurotics generally runs the gamut of neurotic symptomatology during course of a few years, and it is difficult to see how stuttering, as a most obvious condition, could escape being a frequent temporary symptom. The fact is, the stutterer's neurotic anxiety taking the form of a fear neurosis, is a creation instituted by his need for the protection of his personality in numerous speech situations. This defense reaction soon becomes the prototype of all his social reactions, which in turn penetrates and sets the pattern for his entire behavior. In his case the ground work for his symptom stuttering was laid thru his heredity, his prenatal growth and development, and his preschool years, his neuroticism being the natural sequence.

The uneven sex-distribution of stuttering, lends support to our view. About eight times as many boys as girls stutter. There are obvious reasons for that. Foremost is the fact that early environmental stress is never as hard on girls as on boys. The element of social competition enters into the life of even the youngest boys much more decisively than into that of girls. For the little girls play with each other in groups, the same as they did when they played with their mothers or sisters at home, while the boy is injected immediately into an incomparably more strenuous atmosphere of group games in which the prowess of much older boys sets the standard. In other words, the social impact is stronger in the male sex and stuttering therefore must be more common. Also an additional hardship for the male is the fact that mothers usually center their affection on him, injudiciously shielding him and thereby weakening him, with the result that he is unable to cope with the regulation environmental onslaughts. This protection is not beneficial but detrimental.

Besides all this, another factor to be considered is that the fixed personality components show decided differences. Dr. Allen* of the Mayo Clinic tabulated over 300,000 cases and found that females are stronger and healthier than males. They showed in many ways greater physiological and neurological stability. Their susceptibility to many conditions was decidedly less pronounced than that of the male. And as he puts it "The male is inferior to the female, and speaking comparatively, the price of maleness is weakness." This in a way is a definite reflection on their ability to maintain normal control of all organs including speech organs. In fact the female speech apparatus is stronger as well as more perfected in action, thus making for development of a single neuromuscular pat-Since the ability to speak is the result of training and girls are more loquacious, practicing speech all the time, it follows that with their finer mechanism, higher rhythmic sense, and better coordination, they are less liable to lose their balance under new environmental conditions.

We have seen that the two basic factors which the stutterer tries to carry out are: first, chronic crystallization of his anxiety reaction in one symptom—stuttering; second, the contraction of his fear of social activities to a size he can handle. These activities depend one upon the other.

The necessary "de-concentration" of his symptom demands a process similar to that which we observed in the asthenic "schyzoid" type of personality, namely a toning down of the level of activity of the stutterer to attain the level of metabolism in which he is able to maintain himself in a state of normalcy. The speech symptom is thus robbed of its place in the center of the personality.

He must further adjust his energy output to his surroundings. His environment

^{*&}quot;Which is the Weaker Sex?" by Edgar V. Allen, Hygeia, Jan. 1936. "There can hardly be any other explanation than that the male is handicapped by a lessened degree of vitality that is directly or indirectly the result of a peculiar complex of hereditary factors."

must be completely changed so that his sphere of activity is gradually enlarged. He must be *taught* to handle any number of new situations which are likely to arise

in ordinary life.

The stutterer must not be made to think that direct or specific acts, instrumental or otherwise, is his special salvation, for in the last analysis it all evolves into one and the same thing-distraction. Treatment using any form of distraction cannot be lasting despite the fact that it has been employed so extensively. Whether the patient is told to press his nails, swing his arm, pace up and down, rub a button, toy with a watch chain, keys, or pencil, speak according to tracings, learn to write all over again in order to change his handedness, or to institute the phenomenon of stutterers crawling on all fours in order to produce non-stuttering speech, or stutterers talking to waltz time to cure their stuttering, etc., no matter how scientific the explanation may be for doing the special trick it is all one and the same thing-specific distraction.

The reason that many suggestive measures have been employed so extensively is on account of their aid in controlling the individual's emotions so that his innate rhythm and harmony is not disturbed. His fear takes second place and his arrhythmia and lack of coordination become decreased. The help derived makes it possible for him during that time only, to give a more or less perfect technical performance. Any form of distraction when considered in the light of a specific in the cure of stuttering is usually detrimental to the successful outcome of a case.

The reorganization of the type therefore, cannot be brought about through temporary measures of distraction. It is a complex health problem of a medical-social nature, for only through the composite therapy of a Medical-Social Clinic can adjustment be brought about. The treatment must consider the individual's whole personality which is in keeping with the fact that the united complex life means the correlation of both the psychic and somatic.

Our Medical-Social Clinic, founded in 1916, is a powerful motivating force for the integration of the stutter-type. It brings order and peace out of chaos and anxiety, the hope and wish of every stutterer. In our specially created environment he learns to acquire emotional stability so that he is capable of taking a non-hesitating stand, facing situations squarely and fearlessly. He not only gets tranquillized, but remains tranquillized. All this is brought about through a composite therapy of a medical, psychological, psychiatric, re-educational, and social nature.

The chronic hesitator learns to act rhythmically in an organized and confident manner in all situations, because, through personality changes, the task of his adjustment to life has been accomplished. The stutter-type can now be classed as a definite pathological entity, and from my own observations and study of the subject we can say that the problem of stuttering has finally found a practical solution.

126 EAST 30 STREET

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GERMANY'S NEW MEDICAL LAW

By a new law in Germany, no more "non-Aryan" physicians will be admitted to practice medicine while the proportion of physicians of other than German extraction to the total number of physicians in the German reich exceeds the proportion of non-German inhabitants to the total population of the reich. A non-Aryan wife makes the husband also non-Aryan in this rating. The

proportion of non-Aryan physicians still exceeds the legal maximum, so that the bars are up until the proportion goes below that point.

By another clause in the law physicians are forbidden to use (on announcements, name plates and prescriptions, for example) any designation that refers to the activities of some predecessor.

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its attendant phenomena.

Although the clinical interpretations of pain are of great service in the diagnosis of a large group of disorders, we must admit our disappointment in the failure of this symptom to localize accurately and

determine definitely the extent of certain lesions particularly in deeply seated organs. Our inability to designate the site of some morbid processes by the position of the pain, can in many instances he ascribed, in part at least, to a lack of physiological and anatomical knowledge which is so essential to a full understand-

ing of the symptom. It is supposed that our sensations are aroused in the brain and projected either to the exterior of the body, or to some peripheral organ. We are not however conscious that the sensation occurs in the brain. Long experience has taught us that the peripheral reference of pain is an attempt to locate the site of the stimulus. The nerve impulses concerned in the production of pain are mediated by a special set of nerve fibers which terminate in the ventral part of the lateral nucleus of the optic thalamus. It is assumed that when the impulses reach the thalamic level, pain comes into consciousness as a crude. unrefined, and unlocalized sensation. The pain tract from the thalamus ends in the somesthetic area, in the post-central gyrus of the cerebrum. Peripheral projection and the discrimination of certain qualities of the sensation are believed to be due to cortical activity. Head and many other neurologists have recorded cases in which the fibers leading from the optic thalamus to the cerebral cortex were severed as a result of disease, and in these individuals there was an inability to localize and discriminate the quality of painful sensations.

In general it may be stated that the afferent nerves in the body wall or somatic structures are highly sensitive, while those in the internal structures or viscera are of low sensibility. The application of mechanical, chemical, thermal, and electrical stimulation to the internal viscera including the central nervous system does not as a rule give rise to sensation.

The abdominal pain arising from appendicitis and the shoulder-top variety occasioned by lesions in the neighborhood of the diaphragm will be discussed at some length since they illustrate distinct types.

In an address delivered before the Inter-State Postgraduate Medical Association of North America, I directed attention to the fact that: The surgeon has repeatedly demonstrated the insensitive state of the greater part of the intestinal tract. The stomach or gut may be cut without discomfort. The liver is also apparently insensitive. There is an absence of tactile sense in the mucous membrane of the gastrointestinal tract. A thermic response of these structures is also of a low order. Only extremes of temperature are recognized in the lower colon, rectum, esophagus, and stomach. In health, we are seldom conscious of the movements of the stomach and intestines.

Active peristalsis or reverse peristalsis may arouse a distinct sensation, although the position of the stomach or intestines, or the nature of their movements cannot be recognized. Alvarez² emphasizes the value of this symptom when he says:

It seems reasonable to suppose that the brain of a sensitive man or child should detect, or in some way become conscious of, abnormalities in peristalsis long before they are severe enough to become visible on the roentgenray screen. Furthermore, these disturbances are often so transient that it would be hard to demonstrate them objectively.

In sharp contrast to this low state of sensibility of the internal viscera is the highly developed sensory status of the parieties, especially in the skin where heat, cold, touch, and pain give a prompt response with more or less exact localization. The parietal peritoneum and pleura are also very sensitive to pain, but not to cold or heat. The visceral peritoneum and pleura are quite insensitive.

Although the internal organs do not respond to the various forms of stimuli, which bring about definite sensations when applied to the skin, severe pain often arises in diseases of these viscera, This pain is generally attributed to tension of nerve endings in the walls of these structures. For example, in disorders of the stomach and intestines, such pressure may be due to contraction of the muscular tissue in the walls of these viscera in response to dilatation. It is well-known that hollow organs may be distended with little or no discomfort. It is also known that there are wide variations in the contractility and irritability of the muscle tissue in the walls of these viscera, and when these properties are unduly increased, stimulation induces violent contraction attended by severe pain. Diverse forms of pain can be explained by differences in the degree and duration of this phenomenon — over-distention stomach and intestine may occasion only a feeling of fullness, which appears to arise from moderate muscle tension. Intestinal colic is characterized by intermittent paroxysms of severe pain brought about by violent recurring contractions of the bowel. Biliary colic is featured by agonizing seizures of rather prolonged duration from more or less sustained tension. The pain occasioned by traction on a mesentery is sharp and caused by the tension applied to highly sensitive somatic nerves situated in the base of these structures. This pain is of somatic origin and not visceral.

A case which illustrates clearly some of these sensory peculiarities of the abdominal viscera came under my observation several years ago. In order to determine histologically the diagnosis of a gastric neoplasm in a woman, forty-five years of age, two pieces of tissue were excised with punch forceps from the wall of the stomach. This procedure was accomplished by passing forceps into the stomach through an esophagoscope. Although no anesthetic was employed, the pronounced trauma incident to removal of the neoplastic tissue and mucosa with punch forceps did not cause discomfort. An exploratory abdominal operation was later performed on this patient, using novocain infiltration anesthesia in the abdominal wall. Handling the stomach and intestine did not excite pain so long as traction was not exerted on the mesenteries of these organs.

Acute appendicitis presents certain forms of pain which have received intensive investigation. An inquiry into their causes and production sheds much light on this rather obscure problem. Deaver³ recognized three cardinal symptoms of acute appendicitis, namely, pain, tenderness, and rigidity of the abdominal wall. He pointed out that:

The pain is at first colicky, and is referred to the umbilical region; later, it becomes localized at the site of the appendix. Tenderness on pressure is always present, and is sometimes best elicited by rectal or vaginal examination. The point of greatest tenderness is usually over the site of the

appendix. The rigidity of the abdominal wall is usually right-sided. It follows the localization of the pain, and is most marked over the inflamed area. Vomiting is common at the onset of the attack. It desists in favorable cases. Its continuance is an unfavorable symptom.

The initial pain is generally severe, diffuse, and vaguely localized across the abdomen in the region of the umbilicus or the lower epigastrium. Distinguishing features are its colicky nature and absence of definite localization. The position of the pain in the umbilical or epigastric region is remote from the seat of disorder in the right iliac fossa, and therefore is misreferred. This phenomenon is how-ever designated "referred pain." It is believed by many authorities that hyperalgesia of the skin of the abdomen frequently indicates a disturbance in an abdominal organ. The nerve supply of both—the skin and the internal viscus may have its origin in the same spinal segment. It is well-known that the visceral afferent nerves possess a low order of sensibility. Head explains referred pain as follows:

When a painful stimulus is applied to a part of low sensibility, in close central connection with a part of much greater sensibility, the pain produced is felt in the part of higher sensibility rather than in the part of lower sensibility, to which the stimulus was actually applied.

One interpretation of the mechanism of referred pain suggests that the nerve impulses (developed in the nerve terminals of the diseased organ, the part of low sensibility) are mediated by visceral afferents to the dorsal spinal root ganglion, where, in consequence of a synapse, they are routed to the somatic pain path. On reaching the brain, these impulses arouse a sensation of pain which is projected to the nerve-endings in the skin the part of higher sensibility. When the pain-producing stimulus arises in organs whose nerve supply is derived from both sides of the spinal cord, the reference of the sensation is bilateral.

Morley⁵ denies the existence of cutaneous pain reference in disease of abdominal viscera supplied by afferent autonomic nerves, and holds that the pain is a deep-seated sensation. He gives the following explanation:

I am firmly convinced that true visceral pain exists, and that, as Hurst has pointed out, it is usually the result of abnormal tension on the splanchnic afferent nerve endings in the muscular walls of the hollow viscera. It is in no sense referred to the superficial structures of the abdominal wall, and is a deep-seated central pain, not accurately localized. When pure visceral pain occurs, as in early intestinal obstruction, or in the early hours of an attack of acute obstructive appendicitis, it is entirely unassociated with any tenderness, superficial or deep, or with any reflex muscular rigidity of the abdominal wall. I believe that the phenomena of deep and superficial tenderness and muscular rigidity of the abdominal wall, so commonly observed in association with inflammatory disorders in the abdomen, are in no way concerned with the afferent autonomic system, but are entirely referred from the highly sensitive cerebro-spinal nerves of the parietal peritoneum.

Whether Morley's views will be confirmed by future investigations is a matter of speculation. In angina pectoris (a syndrome arising in various disorders of the heart or perhaps the aorta), pain is frequently felt in the left or right arm, or both arms, and not infrequently, in the neck, with exquisite cutaneous tenderness over the precordial area, which may persist for many hours after an attack. The heart is not affected by the ordinary stimuli which bring about sensations when applied to the skin and in this respect it is not unlike the stomach and intestine.

During an operation for drainage of a pericardial effusion which necessitated resection of a part of the anterior chest wall under local anesthesia, I had an opportunity of observing the lack of sensation in the ventricular muscle of the heart and epicardium by gently squeezing the cardiac muscle and pericardium between my finger and thumb, with the result that no pain was felt. Pain radiation into the chest wall and arms -somatic structures-in cardiac disorders presenting the angina syndrome, conforms to the requirements set forth by Head in his definition for referred pain. We have then in angina pectoris an illustration of a syndrome which concerns a viscus situated deeply in the thorax, and characterized by pain projected into the arms and chest wall, especially into the skin. This is a typical example of referred pain. Since the general arrangement of the sensory nerves of the abdomen—with nerves of high sensibility supplying the parieties, and nerves of low sensibility innervating the viscera—is similar to that of the thorax, it seems probable that the pain mechanism in diseases of the thorax and abdomen is based upon the same general principle.

The pain of colic from gastrointestinal disturbances is felt across the belly in a manner suggesting a segmental arrangement; the site of the pain may be far removed from the source of the dis-

turbance.

1. If colonic disturbance is the cause of the sensation, it is over the lower abdomen. 2. If the stomach is the offender, it is over the epigastric zone.

3. If the small intestine excites the trouble, it is over the middle area.

I know of no way of showing definitely whether abdominal pain due to visceral disease is felt deeply or superficially; its segmental position across the abdomen suggests that the somatic nervous system is concerned in its distribution. Dercum believed that referred pain was largely a thalamic function. Undoubtedly there is a great need for further research and not speculation, to clarify our views on referred pain. Alvarez² writes that "the most paralyzing thing in scientific work is a facile explanation which puts a stop to further curiosity without really advancing our knowledge of the subject."

Initial appendicular pain is often widely distributed over the abdomen, and portrays diversities of severity, duration, recurrence, and subsidence. Its severity is generally proportional to stimulation activity. Heads offers the following explanation for these variations: "Its intensity can be roughly graded according to the force expended in stimulation." Colicky pain is ascribed to powerful peristaltic contractions of the appendix, which may arise from occlusion of its lumen by a foreign body, as a concretion, or by swelling of the mucous membrane. When the obstruction in the appendix is overcome through expulsion of the concretion into the cecum, the vigorous peristalsis ceases with disappearance of the pain. In cases of so-called appendicular colic, with little

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Morley⁵ denies the existence ous pain reference in disease of the viscera supplied by afferent aui nerves, and holds that the pam deep-seated sensation. He gives the n

lowing explanation:

I am firmly convinced that true visceral pain exists, and that, as Hurst has pointed out, it is usually the result of abnormal tension on the splanchnic afferent nerve endings in the muscular walls of the hollow viscera. It is in no sense referred to the superficial structures of the abdominal wall, and is a deep-seated central pain, not accurately localized. When pure visceral pain occurs, as in early intestinal obstruction, or in the early hours of an attack of acute obstructive appendicitis, it is entirely unassociated with any tenderness, superficial or deep, or with any reflex muscular rigidity of the abdominal wall. I believe that the phenomena of deep and superficial tenderness and muscular rigidity of the abdominal wall, so commonly observed in association with inflammatory disorders in the abdomen, are in no way concerned with the afferent autonomic system, but are entirely referred from the highly sensitive cerebro-spinal nerves of the parietal peritoneum.

Whether Morley's views will be confirmed by future investigations is a matter of speculation. In angina pectoris (a syndrome arising in various disorders of the heart or perhaps the aorta), pain is frequently felt in the left or right arm, or both arms, and not infrequently, in the neck, with exquisite cutaneous tenderness over the precordial area, which may persist for many hours after an attack. The heart is not affected by the ordinary stimuli which bring about sensations when applied to the skin and in this respect it is not unlike the stomach and intestine.

During an operation for drainage of a pericardial effusion which necessitated resection of a part of the anterior chest wall under local anesthesia. I had an opportunity of observing the lack of sensation in the ventricular muscle of the heart and epicardium by gently squeezing the cardiac muscle and pericardium between my finger and thumb, with the result that no pain was felt. Pain radiation into the chest wall and armssomatic structures-in cardiac disorders presenting the angina syndrome, conforms to the requirements set forth by Head in his definition for referred pain. We have then in angina pectoris an illustration of a syndrome which concerns a viscus situated deeply in the thorax, and characterized by pain projected into the arms and chest wall, especially into the

skin. This is a typical example of referred pain. Since the general arrangement of the sensory nerves of the abdomen—with nerves of high sensibility supplying the parieties, and nerves of low sensibility innervating the viscera—is similar to that of the thorax, it seems probable that the pain mechanism in diseases of the thorax and abdomen is based upon the same general principle.

The pain of colic from gastrointestinal disturbances is felt across the belly in a manner suggesting a segmental arrangement; the site of the pain may be far removed from the source of the dis-

turbance.

1. If colonic disturbance is the cause of the sensation, it is over the lower abdomen. 2. If the stomach is the offender, it is over the epigastric zone.

3. If the small intestine excites the

trouble, it is over the middle area.

I know of no way of showing definitely whether abdominal pain due to visceral disease is felt deeply or superficially; its segmental position across the abdomen suggests that the somatic nervous system is concerned in its distribution. Dereum believed that referred pain was largely a thalamic function. Undoubtedly there is a great need for further research and not speculation, to clarify our views on referred pain. Alvarez² writes that "the most paralyzing thing in scientific work is a facile explanation which puts a stop to further curiosity without really advancing our knowledge of the subject."

Initial appendicular pain is often widely distributed over the abdomen, and portrays diversities of severity, duration, recurrence, and subsidence. Its severity is generally proportional to stimulation activity. Heads offers the following explanation for these variations: "Its intensity can be roughly graded according to the force expended in stimulation." Colicky pain is ascribed to powerful peristaltic contractions of the appendix, which may arise from occlusion of its lumen by a foreign body, as a concretion, or by swelling of the mucous membrane. When the obstruction in the appendix is overcomethrough expulsion of the concretion : the cecum, the vigorous peristalsis with disappearance of the pain. of so-called appendicular colic,

or no inflammation of the organ, central pain may be the only symptom. When a concretion in the appendix is not dislodged, pain usually continues until the unstriped muscles in its walls become fatigued, then amelioration in the pain occurs. Inflammatory distention with stoppage of the lumen of the appendix often excites great tension in the viscus, which explains the more or less continuous central pain. Sudden subsidence of pain due to release of pressure in the organ may be the signal of perforation.

The chief characteristics of the visceral or central pain of acute appendicitis are therefore: 1. Bilateral pain reference; 2. vague pain localization across the abdomen; 3. segmental pain distribution in the umbilical and lower epigastric regions.

The second pain of acute appendicitis is definitely localized and sets in a few hours to twenty-four or thirty-six hours after the onset of the central pain. The localized soreness and the central pain may overlap or the initial griping may mask the localized sensation. The pain is usually felt over the right lower quadrant. It is continuous, sharp, and intensified by movements of the body from change of posture, coughing, vomiting, and deep breathing. It is generally associated with tenderness and localized rigidity of the abdominal muscles. The tenderness approximately corresponds to the inflamed organ in the abdomen or pelvis.

Since the appendix occupies various positions, the site of the tenderness varies, as over McBurney's point, or just below the liver edge, over the right upper quadrant, in the flank, and over the pelvis. Several opinions have been offered to explain the localized pain. The fact that the tenderness occupies a circumscribed area, is right-sided, is aggravated on movement of the body, and is associated with rigidity of the muscles in the abdominal or pelvic wall, near the site of the lesion, suggests stimulation of highly sensitive somatic nerves. Mackenzie⁷ was unable to explain this symptom, and wrote:

I cannot satisfactorily account for the predominant symptoms from the appendix being so distinctly one-sided, seeing that it is developmentally a portion of the digestive tube.

Cope⁸ points out that {

This tenderness appears to be located actually in the appendix itself, for the site of the pain on pressure varies somewhat according to the position of the appendix, is obtainable when that viscus is not adherent to any surrounding part, and is frequently elicited when the overlying wall is neither tender nor rigid. In the case of an appendix situated in the pelvis a rectal examination will frequently elicit pain on pressing on the inflamed organ.

Morley⁰ attributes the localized pain to irritation of the nerve endings of the parietal peritoneum. He states that:

Where recurrent attacks of obstructive appendicitis gave rise to the epigastric splanchnic pain alone, the parietal peritoneum was shielded from the appendix by a fairly thick omentum; and as the degree of inflammation was too mild to penetrate through the thick walls of the appendix and the omentum, the parietal peritoneum was not affected. This explains the complete absence of localizing pain or rigidity, and the difficulty in diagnosis. An appendix wrapped round by omentum and coils of small intestine as a result of some former attack, will in fat persons often give rise to no characteristic right sided pain or rigidity until it has perforated. This absence of rigidity is particularly liable to occur if the cecum and appendix are lying low in the true pelvis. But a degree of inflammation so slight as to cause but a little congestion of the outer serous coat of the appendix and a trifling fibrinous deposit will, provided it lies within reach of the parietal peritoneum, cause the most accurately localized tenderness and rigidity.

The excruciating pain of perforated peptic ulcer impresses one with the highly sensitive nature of the parietal peritoneum. Cope's⁸ description of the onset of this condition is as follows:

The initial symptoms are those due to the pain and shock consequent on the flooding of the peritoneal cavity with the gastric contents. The sudden great stimulation of the innumerable nerve-terminations by the irritating fluid escaping from the ruptured viscus causes reflex depression of the vital functions. This may be so severe that the patient may feel faint, or fall down in a syncopal attack. . . . The pain is sudden in onset. The patient may be feeling well one moment, the next he is writhing in agony and crying out for some one to relieve him,

In appendicitis, rigidity of the anterior abdominal wall is generally absent when the organ lies on the pelvic floor, or when it is shielded by omentum from the anterior parietal peritoneum. The abdominal rigidity is localized at or near the site of the lesion, is generally unilateral in distribution, and the muscle contraction is constant. It is a reflex which concerns only somatic afferent, and somatic efferent nerves.

The contention that the localized pain and muscle rigidity of appendicitis are due to parietal peritoneal irritation is supported by the following symptoms:

Unilateral pain reference.
 Localized rigidity.

(3) The tenderness corresponds to the irritated peritoneum which is near the site of the inflamed appendix. In an acute pelvic appendix, the peritoneum of the pelvic floor is tender and muscle stiffness involves the iliopsoas and not the muscles in the anterior abdominal wall. In retrocecal appendicitis soreness and rigidity are in the flank.

(4) Pain is more or less continuous and accentuated by movements of the parietes.

Another striking illustration of the diagnostic value of pain is the shoulder-top variety. Ross'o in 1887 directed attention to this sign and wrote as follows:

There is, however, an associated pain often present in pleurisy for which it is somewhat difficult to find an explanation. We allude to pain, often severe and urgent, over the outer third of the clavicle, and reaching to the shoulder-tip - the territory of the anterior branch of the fourth nerve. Sometimes the pain feels as if a nail were being driven into the joint, and in these cases it may be inferred that the sensory nerves of the joint (a branch of the suprascapular nerves derived from fourth and of the circumflex nerve derived from the fifth cervical root) are in a state of irritation. Now the fourth and fifth cervical pairs of nerves have no splanchnic connections, and consequently this pain cannot be the associated somatic pain of splanchnic irritation. In observing a case of pleurisy a few days ago, and casting about for an explanation, one of the students suggested that, considering the connections of the phrenic, the pain might be caused by irritation of that nerve. It then occurred to me that Peter had described a phrenic neuralgia, and on referring to his description. I found that he regards pain over the shoulder-tip as a constant symptom. It is only right to add that the phrenic nerve is regarded by some physiologists as a purely motor nerve; but, considering how exquisitely sensitive the diaphragm becomes in pleurisy and in peritonitis, it can hardly be destitute of sensory nerves. In favor of the view that the shoulder-tip pain is caused by irritation of the phrenic, is the fact that essentially the same pain is met with in pericarditis, peritonitis, abscess of the liver, and during the passage of gall stones; while we shall immediately see, that it is probably met with in a more or less disguised form during attacks of angina pectoris.

John Morley¹¹ in a valuable contribution on "The Clinical Significance of Shoulder-Tip Pain," refers to its anatomical and physiological basis, its occurrence in gallstone disease, perforated gastric and duodenal ulcer, perforated peritonitis from other causes, ruptured tubal pregnancy, rupture of the spleen, pneumonia, and diaphragmatic pleurisy. He demonstrated in a case of empyema in which a rib was resected under local anesthesia that when a finger was introduced through the anesthetic chest wall and gentle pressure applied on the upper surface of the central area of the diaphragm, characteristic shoulder pain appeared on the corresponding side. When the extreme periphery of the upper surface of the diaphragm was irritated, pain was felt along the lower chest wall.

The phrenic is derived mainly from the fourth cervical nerve, a small branch from the third and one from the fifth cervical nerves, a branch from the sympathetic, and rarely one from the vagus. The central zone of the diaphragm is supplied by the afferent fibers of the phrenic, the outer zone or rim of the diaphragm is innervated by afferent fibers of the lower six thoracic nerves. Afferent fibers of the third and fourth cervical nerves supply the greater portion of the skin of the shoulder-top. When the central zone of the diaphragm is irritated, pain is felt over the shoulder-top, and when the peripheral zone is stimulated, it occurs over the lower chest wall or the upper abdomen. Shoulder-top pain is definitely a referred sensation, easily explained on Head's hypothesis.

In a recent contribution on shoulder-

top pain,12 I directed attention to the following:

The location, extent, intensity, and duration of this symptom varies considerably. It may cover a wide area over the top of the shoulder or may be localized to a small zone at its tip. Bilateral pain is not uncommon, and indicates involvement of both right and left diaphragm. The pain varies much in severity. In some cases it is so mild as to excite only slight discomfort; in others, it is intense and boring in character. It may be constant, intermittent, or occur only on deep breathing.

The association of abdominal with shoulder pain is common. Abdominal pain may be so pronounced as to annul shoulder-top pain. A case illustrating the presence of violent pain in the lower chest, although the central portion of the diaphragm was subjected to irritation, came under my observation several years ago. It was that of a physician who received a gunshot wound of the peripheral zone of the diaphragm and the spleen. At operation, much free and clotted blood was found in the upper abdomen, which caused marked irritation of the central area of the diaphragm. He suffered from very sharp pain at the base of the chest on the left side, especially on breathing, induced by the lesion in the peripheral region of the diaphragm. The severe pain prevented the phrenic nerve pain from coming into consciousness.

Morley's¹¹ interesting observation supports this finding. He says:

Occasionally we meet with a case of perforation in which the abdominal pain is so severe that the patient's sensorium is unable to appreciate another stimulus. The greater pain inhibits the lesser, and the shoulder-tip pain is denied when we put the question. Induce spinal anesthesia however, and as the anesthesia mounts to the sixth dorsal segment and the abdominal pain vanishes. the patient will ejaculate, "Ah! now I fee' that pain in my shoulder you asked me about."

In acute cholecystitis and biliary colic, shoulder-top and abdominal pain may be associated. Phrenic nerve pain in gallbladder disease is rare, and not easily explained. It is not unlikely that in some individuals fibers of the phrenic reach the wall of the cystic duct and neck of the gall-bladder. Such a disposition of these fibers would elucidate the symptom in gall-bladder disorders. Phrenic pain is almost constant in perforative peritonitis due to the irritation of the under surface of the diaphragm. When free and clotted blood comes in contact with the diaphragmatic peritoneum, it sets up shoulder discomfort. It is an early symptom of diaphragmatic pleurisy.

An interesting case of pleurisy in a girl of seventeen which came under my observation, presented this symptom. Her illness began suddenly with fever, cough, and pain over the right shoulder-top. On the second day of her illness, sharp pain set in at the base of the right chest, and on the following day both the shouldertop and basal chest pain disappeared. After the pains ceased, the physical examination revealed a right-sided pleural effusion. The symptoms indicated that the infection spread from the pleura overlying the central zone of the diaphragm, to the pleura covering the peripheral area of the structure. The separation of the pleural surfaces by the effusion, removed the irritation which caused the shouldertop and lower chest pain.

A painstaking and systematic clinical study of pain, especially when correlated with associated symptoms, and appraised on a physiological and anatomical basis, is a most useful and often an indispensable guide to diagnosis.

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NAILS AND THEIR DISEASES

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Introduction

In going over some of the important literature on the general subject of nails and their diseases, I find many of the leading texts on dermatology, puthology, physiology, and surgery, make little or unsatisfactory mention of either the physiology or pathology of the nuils

Dr J Heller's original monograph on nail diseases is the finest and most comprehensive work on the subject, and from it I have found deep inspiration and a

wealth of material

The importance of nail symptoms may be considered from two points of view one being that they are manifestations of some internal pathology, the other that they indicate some local or general disease of the body covering. Littrely too little attention is, and has been, given to discussions on the changes in the nails or to the significance of such changes.

There is much work yet to be done to systematize the conglomerate collection of data on nail disorders or diseases so as to offer a better understanding of the underlying physiology and pathology. This treatise must, of necessity, be very much curtailed, only the most important and common nail disturbances will be discussed and many of the terms employed in connection with the description of nail diseases will be defined.

Histology and Anatomy of the Nail

The peculiarity in the biology of the nail is that the germ cell develops up to its finish, so that during the life of the nul, which is estimated to be from 120 to 160 days in the adult, there is a complete life cycle—from the epithelial or ectodermil cells of the matrix to the lifeless, exfoliative homogeneous mass of

Acknowledgment and thanks for their help and guidance in the subject is extended to Dr B Lapowski and Dr A Walzer of the De partment of Dermatology and Syphiology of the Good Simaritan Dispensary the nail body. The growth of the nail is continuous during the life of the individual, being more active in childhood and in the summer season. In the child, the nail is renewed in eighty to ninety days, the nails of the toes requiring about three times the period mentioned for renewal. If left uncut, the nail will not grow indefinitely, but will become thin and a natural free distal border will form.

The nail consists of modified cornified epithelium. The nail begins to develop at about the end of the third month of fetal life as a semilunar groove near the end of the dorsum of the finger or toe As the semilunar depression invaginates deeper and further back, the upper portion of this invagination forms the upper nail folds which overhang the nail body, The nail root and the nail body develop from the lower reflection of this invagination, in which there have formed granular prickle cells, and it is from these cells that the nail develops The nail is therefore formed from specially modified prickle cells and is not actually an outgrowth of the enthelium

The matrix or root of the nail consists of the posterior portion of the invagination and the changed epithelium, and extends to the anterior convex margin of the lunula (seen as the white crescentic portion of the nail body) The matrix. as can readily be seen, is a very important structure Microscopically, it is composed from the bottom up of the following a papillary layer with the basal layer of cylindrical epithelial cells, immediately above this are several rows of prickle cells, and then above these, several rows of flat, closely packed, granular cells having shriveled nuclei and containing fine granules which give the white opaque appearance to the lunula The most posterior cells of the matrix form the surface of the nail, the cells more to the front forming the median portion, the cells

Read at the Annual Meeting of The Medical Society of the State of New York, Albany, May 14, 1935 most anterior (or those of the lunula) forming the lower surface of the nail." This is important in the explanation of various nail disturbances and may account for:

1. Injury to or disturbances of the cells of the lunula, resulting in leukonychia.

2. Injury to the median cells, resulting in variations in the thickness of the nail.

3. Injury to the posterior cells, resulting in ridges, furrows or depressions.

The nail body is the result of specialized granular prickle cells which have become flattened and have undergone cornification. They are arranged in superimposed lamellae which can only be distinguished near the nail matrix since further forward they become knitted together to form an almost homogeneous plate. The under surface of the body is traversed by fine longitudinal ridges which fit into corresponding depressions in the nail bed.

The nail bed extends from the matrix almost as far as the free edge of the nail and on it the nail plate rests, being attached to the nail bed. Microscopically, the nail bed consists of a prickle cell layer over a papillary layer. (Fig. 1 and 2).

The circulation to the nail is through a plexus in the matrix formed by dorsally directed branches of the terminal arterial anastomosis of the distal phalanges. In the hand, the median nerve supplies the thumb, index, the middle and lateral half of the ring finger, while branches of the ulnar nerve supply the little finger and the inner half of the ring finger. This is

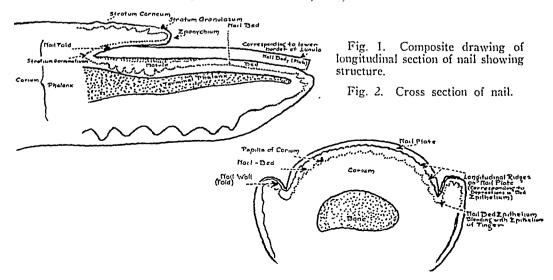
of importance in the trophic changes of the nail. There are several types of "tactile corpuscles" in the corium of the nail bed and matrix which give to the digits, senses of pressure, heat, cold, and pain.⁴

General Considerations

The nails are extremely sensitive to slight nutritional variations. Their manner of reaction to the same trauma may be very different and is due, in a great part, to the extent and duration of the effect of the disease or irritation on the matrix. Thus, the same cause may give either atrophy, hypertrophy, color changes, friability or other dystrophic changes, or any combination of these.

In the several accompanying illustrative cases, the finger nails have been utilized in preference to the toenails, although the toenails are affected in a similar way by the same disturbances. trauma of the toenails in walking and other detrimental factors, such as lack of exercise, excessive heat and moisture render them so changed in appearance that, even in a normal case, the finer descriptive values are lost. It has been shown that tinea organisms are to be found in apparently normal appearing toenails.12 How far this holds true in finger nails is yet to be ascertained, and, at the same time, the relationship of tinea infections of the hands and forearms to tinea of the finger nails needs clarification.

Of the various classifications of nail diseases, the etiological basis is most suitable, viz.,



Some Symptoms and Terms Descriptive of Nail Disorders

Onschaurts Hypertrophy of the nails in length, brendth, and thickness, with varying color changes occurring congenitally or post-traumatic (Fig. 13)

Onvchogryphosis This is restricted to hypertrophies usually congenital, in which twisted contorted, horn twisted mals are present (usually in the toes)

Onychia Inflammation of the nail body from any cause

Unguis incarnatus Ingrowing nuls

Hangnail This is a part of a lateral nail fold detached mechanically and torn upward

Subungual hemorrhage Hemorrhage under the nail plate, occurring in trauma, scurvy, hemophila, etc

Anonychia Absence of one or more nails is rare, but may occur with other mal developments. It may be the result of de layed development, and the mals, although absent at birth may appear later. There there been reperted cases of false implantation of mals, in which the mal is attached to a part of the finger other than normal as at the first interplalangeal joint.

Onschorrherts A splitting of one or all of the nail plates, usually in longitudinal lines

Pitting This occurs as small depressions in the nul plat. These depressions have a punched out appearance, pin-point to pin head in size and varying in number, usually occur on the index and ring fingers. This condition has been noted in cardiac disease, typhoid, smallpox etc. It has been found that practically all of the above tubercular children have these depressions in the nulls? They have also been noted following trauma of maincure.

CHART I -ETIOLOGICAL CLASSIFICATION

Congenital	anonychia etc dystroplies	atroj hy hy pertrophy
Traumatic	Physical Chemical	Manieuring Laborer I riability D scoloration
Neoplastic	Benign fil ror Vial gnant-sam	na—chondroma coma
Infections	Mycotic Epideric Trichor	mophytos s—Fungus phytosis ychia
Affections of The Na is Associated With Cutaneous Diseases	See Chart II	Psoriasis of Nails
Affections of The Nails Associated With Internal Diseases	Syphilis Circulatory-Disease Rheumatism Tuberculosis Endocrine Disturb	es-club fingers etc

Longitudinal ridges
In ridges occur in longitudinal direction, varying from very fine hur lines to the thickness of a large pin When these ridges are wider, they give the mail the appearance of being fluted or reedy, and are then grouped with 'Onychorrhexis' Occasionally, they occur in liealthy mails following trauma Recently hypovituninosis has been held a factor in this disturbance *

Paronychia This is a mild inflammatory process (Streptococcus or staphylococcus) starting in the mil-fold and involving either part of or the entire mul-fold



Fig 3 Patient aged sixteen Epidermo phytosis of fingers six months ago followed four months later by affection of the nails

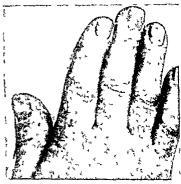


Fig 4 Patient aged thirty five Lpidermo phylosis of fingers and involving nails at the folds Duration, one year

Leukonychna (White spots, also called "Gift Spots") There are many theories of the formation, amongst them being trauma in manicule, interference in the nutrition of of the nail matrix, abnormal cornification, air in the nail substance, parakeratosis with-

out infiltration of air, and finally, deficient keratonization. There are three distinct varieties:

- 1. Punctata: extremely common, "White spots" after trauma of manicure.
 - 2 Striata usually in transverse direction and

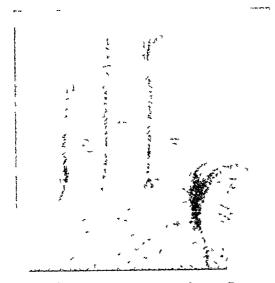


Fig. 5. Patient aged thirty-four. *Psoi iasis* of body for seven years *Psoi iasis* of nails showing very thick subungual debris, elevating thumb nail, two months.



Fig. 6 Patient aged thirty-five Psoriasis of body for eight years. Psoriasis of nails, type showing psoriatic plaque particularly at edges of little finger. Duration, one year.

CHART II -AIFFCTIONS OF THE NAILS ASSOCIATED WITH CUTANEOUS DISEASES

				1		(1		1								===
A lment or Disease	Edges	Pree distal end	Scales at border	Dis- colora tion	Leuzonych m	Beau s Lines	Depress ons or Pitting	Onychauxis (Hi pertrophy)	Onychogryphosis (Horn Twisted)	On chatrophia (Atrophy)	Habalonychia (softening)	Ko lonych a (Spoon na fj	Onscholys s or Onychoschus (loosening)	Onychonadeus or Onychoptous (shedding)	Onychorrhexis (britileness)	Subungual Hemorrhage	Suburgual Temors	- Assessed
Acanthosis Nigricans		•			Stn ated							Often			Buttle			
Atrophia		•								•	•		•	•	•			Ra
Dermatitis Herpetiformis		•		Dirty yellow		•						•	•		Rare		heratotic	In s
W ison Brocq) Dermatitis Exfoliativa	Thickered		•	Opaque				•		Late	•			•				-
Elephantiasis	S nk in tissue and Seam gone	•							Very fare mechanical	•								
Ep dermolysis Bullosa			Val bed ex posed	Nul bed red (olten loose)					Rare	Soft nail sub- stance				Loss no re growth			Bulbous	_
Generalized Alopecia Areata				Yellow white			•	•		•		•		•	Reedy			Ofte
Ichthyosis	Bent i ke claw Stunted			D rty yellow white opaque				Stunted	Very rare in older surviving cases		•		•		Break eas ly		Horny mass occa sionally	
(Hebra) P tyriasis Rubra	Trickened			Opaque lusterless	-			•							Fragile			
Pitynas s Rubra Pilans (Devergie)		Often yellow		Grayish yellow		Trans- verse		Roughened and thickened							Crumbly		Very fare horny substance	_
(Hebra) Lichen Ruber Lichen Acuminatus (Kaposi)				Very opaque	-	Occas onal longitu li nal folds									Finger tips		Distal half only	-
Lichen Spinulosis	1	Thickeneri		Opaque				Thickness										
Pemph gus						•	-	1 - 1 mch			-							
Permo Lupus				White	<u> </u>	•	•	[•								-
Scleroderma	Elevated	mbedded in elevated tip		Opaque 'cerat free edge and finger tip			•		Mild	•								
Danier & Disease	Brittle		 	1		 		l						{		}		

seen more often in neuritise and following severe

illness and congenitally.10

3. Totalis: one of the rarest disorders of the nails. It may be congenital, but is usually acquired following severe sickness. It is occasionally associated with scleronychia, and is also seen in postrheumatic fever (not involving the lunula).

Beau's lines: Transverse furrows which denote impairment of nail nutrition, either systemic or local. They are first seen over the lunula and gradually progress forward with the growth of the nail.

and the Brown or the han

Types of Atrophy

1. Onychotropia: Thin, abortive, and defective nails, most often associated with alopecia, generalized or in patches, and with congenital nail and hair disorders in the family.

2. Hapalonychia: Softened and weakened nail plates which readily split, caused by

defective nail production.

3. Kollonychia: (Spoon nails). Nail plates are thinned, presenting concavities more marked transversely than from before backward. It is supposed to be almost pathognomonic of acanthosis nigricans.

Anychoschizia: Loosened nail in its bed.
 Occurs as symptomatic process in psoriasis, eczena, syphilis and other diseases in which collections of cells beneath the nail mechani-

cally raise it.

5. Onychomodesis or onychoptosis: A total and intermittent shedding of nails after any severe systemic fever. The nail may also be shed with generalized alopecia areata, syphilis, and diabetes⁶ (Chart I).

Classification

1. Congenital: Anonychia, as previously described, also mutations.¹⁵ (See chart I.)

2. Traumatism: As a result of traumatism from many sources (mechanical, chemical, x-ray, etc.), the nails may be severely injured and entirely changed in appearance, such changes depending on the part or parts of the nail so damaged. The severest changes will result from injury to the matrix.

3. Neoplastic disorders: These are confined to the various forms of subungual growths, such as fibroma or sarcoma, and also include the phalangeal tunnors io in so far as they affect the nailbed and cause subsequent elevation or

displacement of the nail-plate.

The verucea of the nail-folds should also be mentioned here. This usually occurs on one or both lateral nail-folds, is of the cauliflower type and may extend deep into the nail-fold, causing pain, discomfort, and bleeding.

4. Infections: (a) Pyogenic-parony-

chia, as described. (b) Onychomycosis.

1. epidermophytosis. 2. trichophytosis.

3. favus. (c) Moniliasis.

In normal nails, many tinea, yeast, and thrush fungi are to be found, the main types being the microsporon, trichophyton or megalosporon, pityrosporon, hemispora, oidiomycosis. Before going any further, I might say that I cannot at this time go into a full discussion of the plurality of fungi causing ringworm of the nails. ¹⁷ This is, of course, the task of the mycologist.

The relative importance of the trichophy-

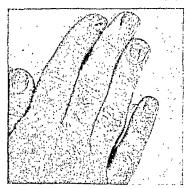


Fig. 7. Patient aged thirty. Psoriasis on body for many years. Nails of "worm-eaten" type of about one years' duration.

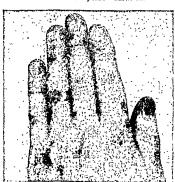


Fig. 8. Patient aged thirty-four. Psoriasis on body for ten years. Nails, type showing pitting. Duration, one year.

ton and epidermophyton as a cause of onychomycosis has changed often in recent years. It has been shown that the former is by far the predominant cause of nail diseases of the toes.¹⁸

On the other hand, it seems that in Europe the epidermophyton plays the dominant role.¹⁰ From a study and compilation of over 500 nail affections in a tropical climate, the most prevalent was onychomycosis. (1890.)²⁰

(a) Trichophyton. Ringworm of the nails may be a primary disease, but it is

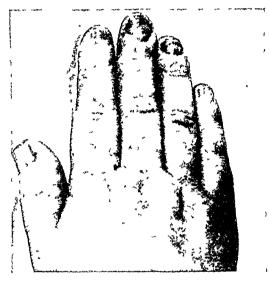


Fig. 9. Patient aged thirty-nine. Tinca trichophyton finger nails involved. Duration, seven months Hands, body, and hair normal.



Fig. 10. Patient aged thirty-two. Tinea trichophyton: finger nails, duration, six months No skin lesions ever present.

usually secondary to ringworm of distant parts of the body. The nails of the hands are more commonly affected than those of the toes, probably due to the act of scratching other affected parts. Infection usually takes place beneath the free border, attacking the epidermis of the nail-bed and nailbody, causing the formation of a dirty gray, scaly thickening which raises the nail. It gradually spreads backward towards the matrix, attacking the nail substance itself and giving rise to various nail changes as irregular, thickened, spongy, dirty-looking nail with a frayed edge. The final diagnosis, however, is made by demonstration of the organism in the exudate or scrapings, or by cultural or biological characteristics. Figs. 9, 10, 11, 12. A rare case of onychomycosis affecting all the nails of the hands and feet was caused by a trichophyton.21

(b) Epidermophyton. The diverse character of the lesions of mycosis (non-trichophyton) of the nails of almost all nail cases, suggests the idea of symbiotic relationship of these fungi with various common saprophytic molds or bacteria so often associated with them in the tinea lesions. Invasion of the nails is always secondary to the epidermophytosis on the hands or feet. It may attack from the nail-folds-only one nail or several, or all. In a typical case, after invasion of the nails, the plate becomes changed in color, consistency, and shape, the process beginning commonly along the attached borders of the nails at the lateral or post-nail folds. After infection of the nail bed and matrix, the nail becomes friable and breaks away irregularly from its attachment, and there are often subungual striae towards the lunula. As usually seen, the nail surface is irregular, showing ridges and depressions. It is spongy, granular, and of a yellowish or brownish color. The anterior portion of the nail is finally cast, leaving a stump near the lunula which is markedly deformed. Figs. 3 and 4.

- (c) Favus (very rare). Gives similar clinical picture.
- 5. Affections of the nails associated with cutaneous disease:
- (a) Psoriasis. One of the most important and common diseases of this group is psoriasis. Psoriasis of the nail alone, if it occurs at all, must be very rare. The predilection of the nail site for the lesions to form may, of course, be present in an individual inclined to psoriasis of the body. In a given case of psoriasis of the nail with no body manifestations, one may find that either the body lesions have disappeared or that the lesions will appear.

Changes in association with psoriasis occur in three distinct forms:

1. The margin of one or more nails near the free border loses its natural lines, the edge of the plate is visibly loosened from its attachments and a thin granular mass interposes between the damaged portion of the nail and its bed (psoriatre plaque) The diseased part of the nail, being friable, may break away or else cling to its attachment, the second portion. The process may slowly continue to the root of the nail. In some few cases, there is a well-defined subungual psoriasis patch which may proceed to the point of partially detaching the nail from the bed, although the nail is not often completely

shed Figs 5 and 6.

2. There appear multiple pin-head sized and smaller punctate depressions, often regularly arranged in longitudinal directions about eight to ten in the nail affected. These represent points of softening of the nail substance and, in

appearance, have been likened to the exterior surface of a thimble.²² Fig. 8

3. The nails appear "worm-eaten," pitted, friable, and discolored; some split, some fracture which may leave a crumbled-edged, wellattached stump with the distal quarter or half of the plate missing and the exposed matrix covered with an imperfectly formed, horny epidermis 22 Fig 7.

6. Affections of the nails associated with internal disease:

Syphilis of the nails, Exclusive of chancre of the nail which sometimes involves the nail-bed, or more often the nail-fold, the nail changes in syphilis that occur in the secondary and tertiary stages may be divided into two large groups 2, 13, 14

(a) Onychia sicca syphilitica In this group, there is no obvious inflammation of the adjacent skin or of the nail matrix or nail-bed. Regarding this group, almost every conceivable clinical type of nail lesion has been described, among which are pittings, thickenings, fissures, splittings, discolorations, and even Beau's Lines Much difference of opinion is expressed as to whether these dry onychia are the result of local syphilitic manifestations or due to general nutritional disturbances of other etiological factors besides syphilis

(b) Paronychia or perionychia syphilitica. In this form the nail lesions are secondary to local inflammatory disturbances and include two varieties (1) Papular or pustular lesions on the nail-bed, (2) Papular-crusted or ulcerative lesions around the nail and involving the matrix and the nail-bed Each of these varieties is said to be more common than onychia sicca. The diagnosis in these syphilitic nails is dependent upon the history of the case and its associated lesions, with or without a positive Wassermann at the time.

Conclusions

 It is impossible in this article to attempt to describe all the nail conditions

listed in the classification (Chart I) because of the time limitation of this paper.

2. An attempt is made to clarify for the general practitioner the anatomy, physiology and varied findings in nails and their diseases. A chart of classification of nail diseases and a chart, depicting graphically the predominant signs and symptoms found in nails associated with the more important dermatological entities, are added.

3 From the appearance of the diseased nail, it is difficult or impossible to come to a definite conclusion with regard to



Fig. 11. Patient aged seventy. Tinca trichophyton: finger nails, duration about twenty years. Timea of groin for many years.



Fig. 12. Patient aged twenty-five. Tinea trichophyton: finger nails, duration, three months



Fig. 13. Patient aged six and a half. Lichen spinulosis of body with pachyonychia congenita. Case reported by Andrews and Strumwasser, N. Y. STATE J. M., 29.747, 1929.

the underlying cause since similar appearances may be produced by totally different causes. In most cases, a firm diagnosis can only be attained from the presence of concommitant symptoms of cutaneous or general disease.

4. In affections of the nails associated with cutaneous disease, psoriasis and mycoses are chosen because of the limitation of this article and because of their relative importance and prominence in dermatological and medical practice. Illustrating photographs are appended, as well as a photograph of a case of pachyonychia congenita with lichen spinulosis of the body.

A: Psoriasis: The deep form of pitting arranged in a longitudinal form is suggestive; also the psoriatic plaque and subungual keratoma.

B: Mycoses: Here the diagnosis should really rest on a microscopic demonstration of the organism or by cultural or biological characteristics. The mode of invasion should tend to give a clue.

1. Epidermophytosis of fingers may involve the nails, beginning as a rule, from the nail-

2. In trichophytosis, involvement begins with the edge of the nail. There is also a history of tinea of the scalp or skin.

5. In affections of the nails associated with internal diseases, syphilis is chosen because of its interest to most physicians. Here, the other etiological factors must be ruled out before considering a nail syphilitic.

6. Other lesions of the nails should lead to careful history and search made for the cause, such as recent illness, excessive manicuring, traumatism.

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MEDICAL CENTER FOR JERUSALEM

Construction of the Rothschild-Hadassah-University Hospital on Mount Scopus, overlooking Jerusalem, probably will begin late this summer, according to Dr. Jacob J. Golub, director of the Hospital for Joint Diseases and consultant to the building committee of the institution in Palestine.

It will be the first medical center in Palestine, Dr. Golub explained, and will cost about \$750,000. On a twenty-five-acre plot will be three units of buildings, each three stories high; a 260-bed hospital, a graduate medical school, with complete laboratories, and a nurses' training school and residence.

CLINICAL-PATHOLOGIC STUDY OF MENINGITIS

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The writer has undertaken the study of these cases in order to add light to (1) the pathogenesis of meningitis, the dissemination of the inflammation and the concomitant intracerebral pathology, (2) the relationship of a specific bicterial infection to the nature of the pathology produced, and (3) the relationship between the clinical symptomatology and the

lesion found in necropsy

For this purpose eighteen cases have been examined, these were hospitalized and later came to necropsy Microscopic section of the body organs as well as of the brain were studied. The following stains were used in this series Nissl. Hematoxylin-Losin, Van Gieson, scarlet red, Spielmeyer, Bielschowsky and Penfield's modification of Hortega clinical history of each was carefully studied and compared with the pathological findings, and the following reports represent summarized conclusions which may help to elucidate the above problems

Embryologic and physiologic principles In the study of the reaction of any tissue we must invariably refer to its embryologic origin, for any tissue reacts in a manner which is inherent in its particular potentialities. The meninges are mostly mesodermal tissue, but doubtedly there is also some ectodermal element in it 1 Of course, the dura as well as the arachnoid and pia are structurally different from each other The dura is very vascular, and contains lacunae with many interstitual spaces in which are nests of arachnoid cells, whereas the arachnoid is avascular and its cells are mesothelial in type, and, as the name suggests, it spreads and fuses in a spiderlike fashion with the pia. The pia has two main layers, an external and internal. the latter separated from the former by longitudinal fibers which are usually parallel to each other and occur in thick bundles

An important fact is that the subarachnoid space which contains the spinal fluid may be compared to a vascular system This space extends along the adventitia of the blood vessels into the brain substance, and also along the nerves, cramal as well as peripheral2 The flow of fluid within this space has usually no definite direction, but its constituents may mixed when the fluid is propelled to and fro in a tide like motion by the change of intracranial content capacity due to inspiration and expiration Of course, this fluid is absorbed by arachnoid villi, and therefore all the constituents will sooner or later reach this station 3

Another important physiologic fact is the existing barrier between the blood and the spinal fluid. This is easily demonstrated experimentally, if one injects dye within the blood, it does not penetrate into the spinal fluid Also, if one injects bacterial toxins within the aorta, one can not produce, under ordinary circumstances, an encephalitis Neither can one isolate the bicteria from the spinal fluid But if there is a concomitant injury or defect in the meninges or bruin substance, then this barrier is reduced and the inflammatory process enters into the brain tissue with remarkable intensity 4

It must also be remembered that one is not justified in calling any reactive process showing infiltrations in the blood vessels, an encephalitis By the term encephalitis is meant that there must be present an independent inflammatory disease with local structural inflammatory signs These signs by themselves are in sufficient for the diagnosis of an encephalitis If given a softening with infiltration of the blood vessels in its vicinity, we would term this a local inflammatory reaction, but not an inflammatory disease. This conception has been definitely established as a pathologic truth 5

Pathogenesis and distribution If the foregoing is kept in mind, it becomes very much simpler to follow certain principles in the production of meningitis No blood infection can produce a meningitis or an encephalitis unless the blood barrier has been minimized at first by a vascular insult to the brain parenchyma These

insults are usually the result of bacterial emboli within the vessels, or of a toxic interference in the performance of the vascular function. If such an injury occurs, there results within that area a definite inflammatory process whose products are drained via Virchow-Robin spaces into the subarachnoid space. It is at this point that a meningitis begins from the infectious products in the spinal fluid.

An example of such a phenomenon may be illustrated by means of the following case:

V.B., male, age forty-one, was admitted to the hospital with weakness, chills, fever. cough, and a pain in the chest. He looked toxic, and somewhat confused. Examination showed a resolving pneumonia in both lungs, with a possibility of a lung abscess or empyema. In the course of the high fever the patient developed a left facial palsy, twitching of the right side of the face, mouth, and tongue. Gradually he ceased to use the left side of the body, which became more or less spastic. Swallowing became difficult, and finally the patient altogether lost the power to swallow. There was no definite Kernig at first; spinal tap at this time showed 190 cells, thirty-five of which were lymphocytes.

Autopsy showed chronic upper respiratory infection, chronic purulent bronchitis, upper right lobe lung abscess, chronic bilateral pleuritis, empyema left, metastatic infarcts and abscesses in the liver, spleen, and pancreas. There was diffused purulent meningitis most marked at the base of the brain, but present also along the convexities. Microscopic examination showed metastatic abscess in the right cerebellum, as well as an abscess in the right parietal lobe. There was also a circumscribed area of softening in the left parietal lobe involving the anterior and posterior central gyri with a large thrombus formation in the vessels of the adjacent meninges.

This case demonstrates a generalized pyemic process with metastatic abscesses into the brain parenchyma, including a vascular lesion. In spite of the existence of the septicemia for some time, a generalized meningo-encephalitis was produced only after the brain blood barrier was minimized through the vascular trauma.

On the other hand, the infectious agent may gain entry to the spinal fluid via endoneural channels or through contiguous trespassing, as in otitic abscess; or by actually penetrating a vessel wall during its course into the subarachnoid space: or through its trophistic affinity towards the fluid, in which case there would exist a meningitis primarily. The inflammatory products then course through the Virchow-Robin spaces into the layers of the cortex and produce a concomitant encephalitis; the encephalitic process is more or less limited to the upper layers of the brain because of the fact that the vessels from the pia penetrate the brain substance for only a short distance. frequently one finds a defensive glia reaction in the first layer, the "Randzone," because of the direct irritating stimulus of the inflammatory products in the fluid which it bathes.

Extra-meningeal pathology: It is very significant that an ependymitis usually accompanies every form of meningitis. This is due to the fact that the infectious agent permeates the foramina of Magendie and of Luschka into the inner ventricles, thus affecting the ventricle lining, mostly its subjacent tissue. This is characteristic of all forms of meningitis, and it can also be experimentally produced by the injection of dye into the subarachnoid space intravitally, and later on, post-humously, one finds not only a meningo-encephalitis of the superficial layer of the cortex, but also a subependymitis.6.7 It is also characteristic that in those cases in which the basal cisterns are mostly involved, the floor of the third ventricle is always affected; for the floor of the third ventricle almost reaches the meninges at this point.8

All meningitis is accompanied by a perineuritis. This is due not only to the involvement of the cranial nerves as they pass through the subarachnoid spaces but also to the continuation of the subarachnoid spaces along all nerves, spinal as well as cranial.

There is also a concomitant cerebral edema with an increase of tissue spaces. The edema may be so great as to lead to diapedetic extravasations of blood. This is easily understood from our foregoing physiologic considerations. The retention of fluid may be due to the blockage of drainage by the inflammatory products in the perivascular spaces as well as to the direct involvement of veins causing local circulatory obstruction. This excess may

lead to vacuole formation (status facunaris) or to metabolic changes within the

ganglion cells

Frequently one finds circumscribed areas of myelm sheath loss within the white substance. Usually they are perivascular, but at times one may consider these foci as due to a nutritive interference dependent on vascular dysfunction.

Relation of the infectious agent to pathologic lesion. The cases which have been studied in this scries included various infectious agents most of which have been bacteriologically proven Although there is a discernible qualitative difference in the reaction called forth by them, nevertheless the capacity of the various tissues in the meninges to react to a noxious substance is more or less limited For instance the dura brings forth proliferated fibroblasts and gitter cells. The vessels may be increased in number, cdematous, and their walls infiltrated with cells These infiltrated cells may even wander away from their anchorage into surrounding space The arachnoid is avascular, and always remains morphologically the same However, the mes othelial cells may be mingled with wandering cells of the infiltrative type which may be found discrete or in clusters The pia, on the other hand has numerous blood vessels, and these will show a reaction similar to that in the dura. In the purulent cases of this study, the pmn leukocytes predominated These at times contain ingested microbes. At times there are necrotic areas in which one finds remnants of necrotized cells. These areas may be surrounded by macrophages and numerous gitter cells. The inner layer of the pia, in these cases is very hyperemic and very vascular The infiltrations in these vessel walls are composed mostly of leukocytes, but there are also many lymphocytes and polyblasts. All these are found not only in the Virchow-Robin space, but may penetrate through the ves sel wall to and including the very intima, so that panarteritis is produced

There is no appreciable difference between the pneumococcic and the meningococcic local reactions. The leutic mening encephalitis is characterized mostly by the predominance of the lym phocytes and plasma cells, whereas the tuberculous infection has as its outstand-

ing characteristic the macrophages this infection the cells of the blood vessels strin brdly, the elastica may be split up or broken, and the adventitia is invaded by numerous cells which may become caseous because of their insufficient blood supply, thus leading to the formation of tubercles It is noteworthy that in tuberculous and luctic infections the predominating seat of the inflammatory process is at the base of the brain, lessening in intensity towards the convexities. One also notices a confirmation of the findings of Pollak,10 that in the tuberculous process the arachnoidal involvement predominates whereas in syphilis the pia is mostly in-

Clinical symptoms Attempts to correlate the clinical symptoms with the actual puthological findings obtained in postmortein studies, meet with some difficulties. For we can not associate personality putterns of behavior with a definite focus of pathology. The symptoms of meningitis have to be evaluated (1) from the total personality make-up, (2) from toxic effects, (3) from vascular dysfunctions (4) from neuritic involvements, and (5) from intracerebral pathology. Each case represents an entity in itself, although possessing some traits of a common group

1 Personality changes This is especially evident in tubercular meningitis, where the onset may be gradual with hardly any fever. The patient becomes irritable cries without provocation loses his appetite, becomes sulky and at times stuporous and prefers to be left alone. At times the patient is fretful and restless.

2 Torue effects Severe headache and vomiting should be considered as the earliest manifestations to arouse suspicions of an intracranial involvement especially of mennigitis if there is some infection present, such as middle ear disease 11 Fever is usually present, and ranged in the cases of

this study between 100-105° F

3 4, and 5 Vascular dysfunctions present symptoms depending on the nature of the lesson it produces. At times the patient shows hemiplegic signs, and at other times aphasic, these may be transitory or permanent. Trequently the content of a dehritum might give material for the diagnosis of cortical miolement. As stated before, in all cases of meningitis there is an accompanying subependymitis. This is to be considered especially in the symptoms due to increased intracranial pressure.

The localizing signs may be many and varied, depending on the concomitant neuritis or upon the intracranial seat of the lesion. In those cases which have the predominating inflammatory process in the basal cisterna, an involvement of the third, fourth, and sixth nerve is very common. The sixth is usually most frequently involved, because of its long course underneath the dura and also underneath the petrosphenoidal ligament, exposing it more to injury by an exudate. Optic neuritis is frequently seen; one of our cases had a right homonymous hemionopsia due to an involvement of the left temporal

A rigid neck and Kernig are not always present. They may be considered as diagnostic signs only if obtained. They are present in basilar meningitis, but if the process is mostly in the vertex, there may be no stiff neck and no Kernig.

Conclusions

- 1. The dissemination of meningeal inflammation follows physiologic principles.
- 2. Meningitis is always accompanied to a greater or lesser extent by intracerebral pathology.

3. There is a qualitative difference in

the reactions to the various agents.

4. Clinical symptoms should be evaluated from personality change, toxic influences, vascular dysfunction, neuritic and intracerebral involvements.

65 CENTRAL PARK WEST

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MEETING FOR STUDY OF GOITER

The annual meeting of the American Association for the Study of Goiter will be held in Chicago, June 8th, 9th, and 10th. The tentative program is as follows:

Monday, June 8, Morning

Dr. J. B. Collip, Montreal, Canada, Title to be announced.

Dr. Willard Owen Thompson, Chicago, Ill. 1. "Interrelations of Pituitary and Thyroid" or 2. "Recent Observations on the Thyroid Hor-

Dr. J. Lerman and Dr. W. T. Salter, Boston, Mass. "The Role of Natural and Artificial Thyroid Proteins."

Dr. H. J. Perkins, Boston, Mass. "The Interpretation of the Blood Iodine Level Before and After Subtotal Thyroidectomy for Hyperthyroidism."

Dr. D. Ray McCullagh, Cleveland, Ohio. "Quantitative Investigations of the Thyrotropic Hormone."

Afternoon

Dr. John De I. Pemberton, Rochester, Minn. "Hyperthyroid Reactions."

Dr. S. Hertz and Dr. J. H. Means, Boston, Mass. "Profound Weight Loss as a Precipitating Factor of Thyrotoxicosis."

Dr. Frederic A. Coller, Ann Arbor, Mich. "Liver Function in Relation to Hyperthyroid-

Dr. James H. Hutton, Chicago, Ill. "The Response of Exophthalmic Goiter or Graves'

Disease to Irradiation of the Pituitary and Adrenals."

Dr. Nathan A. Womack and Dr. Warren H. Cole, St. Louis, Mo. "The Thyroid Gland in Hypoglycemia."

TUESDAY, JUNE 9, AFTERNOON

Dr. Henry S. Plummer, Rochester, Minn. "Mortality in Exophthalmic Goiter." Dr. James A. Lehman, Philadelphia, Pa.

"Hyperthyroidism in Children."
Dr. Arthur E. Hertzler, Halstead, Kansas.
"End Results of Total Ectomies in Interstitial Goiters, Cardiotoxic States and Spontaneous Myxedema."

Dr. T. C. Davidson and Dr. David Henry Poer, Atlanta, Ga. "Goiter in Georgia: A Statistical Study in Five Hundred Consecutive Cases.

Dr. Charles H. Arnold, Lincoln, Neb. "Control of Hypo-Parathyroidism."

Prize Award Essay.

WEDNESDAY, JUNE 10, AFTERNOON

Dr. Frank H. Lahey, Boston, Mass. "Stage

Operations in Severe Hyperthyroidism."

Dr. Frederick S. Wetherell, Syracuse, N. Y. "An Investigation into the Use of Iodine as a Treatment in Toxic Goitre."

Dr. Alfred H. Noehren, Buffalo, N. Y. "The

History of the Thyroid Gland."

Dr. George E. Beilby, Albany, N. Y., Dr. John C. McClintock. "The Pyramidal Lobe of the Thyroid and Its Significance in Hyperthyroidism."

HYPOTHYROIDISM

HERMAN L. FROSCH, M.D., New York City Associate Physician, Morrisania City Hospital

In some main aspects of hypothyroidism, I am in thorough accord with Dr. Cecil Barlow, honorary physician to the Lincoln County Hospital, England, who in 1931 published a paper entitled "A Plea for the Earlier Recognition of Thyroid Deficiencies." My own treatise can be introduced by reading the first two paragraphs from this paper.

About eighteen years ago [writes Dr. Barlow] the importance of this subject was unpleasantly brought home to me, by the discovery that I was on the high road to myxedema, and that the condition had been coming on for about two years. The diagnosis was made at sight by my old friend and teacher, Dr. R. G. Helb, senior physician and pathologist to the Westminster Hospital, who met me by chance in the hospital. He was a somewhat laconic individual, so instead of commenting upon my appearance, he sent me a postcard two days later, on which was written "Try thyroid." I had not been well for two years, although working hard, and daily meeting other medical men, but none of them hinted that I was suffering from hypothyroidism, although some did remark that I did not look well.

As a result of this discovery, I have ever since been on the alert to detect evidence of a failure of a thyroid secretion in my patients, and I have been, and am immensely impressed by the large number of persons to be seen going about with obvious thyroid defect, which has probably been unrecognized and certainly not treated. I am forced to the conclusion that the average medical man is not nearly sufficiently alive to the condition.

I am in complete accord with Dr. Barlow on this question. In the past few years, since my interest in this subject has been aroused, I have seen all too many patients treated as psychoneurotics, neurasthenics, or "nervous breakdowns," when the real cause was a hypofunction of the thyroid. All too many patients are treated with diets for constipation, agomensin for amenorrhea, iron for anemia, and strychnine for weakness, when the real cause of the trouble lies in the thy-

roid. One is prone to forget that although it is possible to live without the thyroid, yet for a complete and well-functioning mechanism it is needed for the tempo at which it keeps the body.

Perhaps it would be well to investigate the thyroid first, before sending the next patient to Florida or the mountains for a complete and thorough rest. Much may be accomplished at home by a little judicious extract administration.

The following cases illustrate this contention.

Case 1. A.J., fifty-six years old, a little lady fifty-seven inches tall, weighing 116 pounds, the mother of one of my colleagues and a friend came to see me after going the rounds of many consultants; complaining of precordial pain, choking sensation on lying down and extreme weakness, so that even ordinary conversation seemed to exhaust her

Physical examination revealed a wellnourished woman, suggestive mongoloid expression around the eyes, thinning of temporal hair, almost complete loss of outer third of eyebrow hair, hardly any hair in the axillary and pubic regions. B.P. 160/80, and pulse ninety. Basal metabolic reading done the following morning gave a minus nine per cent reading.

Despite the reading I was so thoroughly convinced that this patient suffered from hypothyroidism, that I decided cautiously to try the therapeutic test. She was, therefore, put on 1/4 gr. of thyroid three times daily, a half hour before meals.

Nine days later, she said that she felt slightly stronger; blood pressure was 140/90 and pulse was ninety. I asked her to renew the thyroid. One week later patient insisted that she felt decidedly stronger, that she was able to walk several blocks without being unduly fatigued. This time her pressure was 125/75 and her pulse rate was seventy-five. The thyroid was now increased to ½ gr. three times a day. Within one week her pulse was ninety-nine; but she stated that she had not felt as well in two years. Approximately five weeks from her first visit, another B.M.R. was minus 13 per cent, and the patient felt fine.

This case illustrates a few interesting

points. To begin with, here is a case of hypothyroidism with a hypertension. This certainly is not according to old time teaching, and in addition, the blood pressure comes down to normal under thyroid administration. I can cite several such cases, one of which was a far advanced myxedema, with a blood pressure of 190/110, which fell to normal with thyroid administration.

The other point of interest is the lowered basal metabolic reading after five weeks of thyroid therapy. This I see all too frequently in my work to call it just a coincidence. I believe it can be explained, either, that the first reading was much too high because of the anxious expectancy of the patient, when confronted with an unknown and to her formidable instrument; or that the thyroid administrator had depressed the thyroid in its function and that it had gone into a more or less resting state. It is my opinion that the first explanation is probably the correct one.

Case 2. A man of thirty-seven, a "bookie" at a race track, came in with a complaint of nervous spells, depressed feelings, sometimes with exhaustion, and, sudden periods of extreme weakness; he was not sure of himself. These attacks occurred at the most inopportune moments. Because of this fear, he gave up his job and stayed at home, and was afraid to walk a few blocks away from the house. These attacks had lasted, up to the time of writing, over a period of two months. Ten years ago, he had had a similar condition which lasted for a very long time but finally subsided; he had never been well since.

His past history is essentially negative except for a gonococcus infection six years ago. With the exception that the left shoulder is higher than the right, and that there is a scoliosis of the thoracic spine, with a convexity to the left, the physical examination was essentially negative. The blood pressure varied from 130/70 to 150/80; pulse ninety. For almost two months, this patient continued to come in on the average of twice a week, and despite all forms of sedation, symptoms continued unabated.

A basal metabolism at this time was minus 17 per cent. He was, therefore, put on ½ gr. of thyroid three times a day and asked to return in ten days. On returning, stated that he felt better, and that his symptoms were on the wane. His pulse and blood pressure remaining unchanged; his thyroid was increased to two gr. a day.

On the following visit there was no question but that there was more life in his speech. He was back on his job, and at the time of this writing he claims to be completely normal, having gained seven pounds in weight, pulse seventy-eight, blood pressure 130/80. The last basal metabolic reading two months after the institution of thyroid had been minus fifteen per cent. The patient dreaded the periods when he was off thyroid, and now takes an extra amount when under unusual mental or physical stress or strain.

Here again is a patient whose first basal metabolic reading, as compared with the last one, must have been much lower than the actual findings. Furthermore, under the old-time treatment surely this patient would have been sent away for a complete and thorough rest in the country, with the return of all his symptoms as soon as he came back to town.

In this case, I have not attempted to push the thyroid to the point of bringing his basal metabolism to the normal, for his normal may be low to begin with. I gave him sufficient thyroid to bring him to the point of a feeling of well-being which, after all, is the objective desired.

Case 3. P.L., a high school girl, 15½ years old, came in with the complaint of a nervous feeling in the stomach, a shaky feeling, and underweight. Her appetite was excellent, bowels constipated, and she felt cold often. She began to menstruate a year before, and had missed only two periods since.

Her family history is extremely interesting. Her younger sister came to me because she had a large prominent gland. Her basal metabolism was minus 20 per cent. Two aunts on the paternal side have enlarged thyroids, one suffering from hyperthyroidism and the other from hypothyroidism. The mother of the patient was a rather stout person with a hypothyroid distribution of fat.

Physical examination revealed a thin underweight, highly nervous child. There was a tremor of the tongue, otherwise the status was essentially negative. Twenty-four hour urine was negative; hemoglobin ninety-five per cent; blood sugar ninety-eight mgs. per cent; cholesterol 178 mgs. per cent; weight eighty-eight pounds; blood pressure 100/50; pulse ninety. and B.M.R. minus twenty per cent.

Thyroid extract ¼ gr. twice daily was prescribed. On her return three weeks later, despite the fact that her B.M.R. was still minus twenty per cent, she said that she

felt decidedly better, and, that her nervousness had definitely disappeared. Her mother now wanted her to go to camp. To this I readily consented giving her a prescription for fity ¼ gr. thyroid extract pills. These she took on and off during her entire six

weeks in camp.

When she returned there was no question but that there was a marked improvement in the child. She had gained six pounds, was more alert, stronger, and her mother said that she was less lazy than she had been. My first reaction was to attribute this improvement to her vacation. But, then her sister was presented to me with a loss of weight and a decided change for the worse. This one had definitely lost ground under the same camp routine and regime, but without taking the thyroid.

At this time a B.M.R. in Case 3 was minus fourteen per cent, pulse seventy-five, and a gain of a half inch in height. She continued taking her thyroid and when seen a month later, her B.M.R. was minus three per cent. Her mother volunteered the information that her disposition had changed for

the better.

This case is interesting because of the family history of thyroid disturbances. Her sister suffered also from hypothyroidism; and the therapy demonstrated that, while the one was improving, the other who did not receive the extract was beginning to decline.

CASE 4. E.B., nincteen years old, a student nurse at Lebanon Hospital, case histories No. 82226 and 83097. (This case is reported with Dr. Wilhelm Weinberger's permission.) The patient was admitted the first time because of precordial pain, rapid breathing, a feeling of coldness and chilliness. She stated that she had been on duty until 7 P.M., but had been rather unconfortable during the day because of precordial pain. The pain had not been constant. At 9 P.M. the precordial pain became more severe, was accompanied by shaking, trembling, a feeling of dizziness, and a "blackness" before the eyes.

The past history obtained some time later revealed that she never had a similar attack before; she would tire very easily in that by noon she was exhausted and would marvel at how the other nurses kept going; menstruation began at thirteen, was always regular and there was no dysmenorrhea, bled six to seven days—profusely, for the first three days.

Physical examination at the time of admission revealed the following: Rapid shal-

low respiration, extremely restless, heart, lungs, and abdominal viscera apparently normal. Pulse eighty and of good quality; blood pressure 85/60,

Laboratory data: Hemoglobin 84 per cent; R.B.C. 4,200,000; W.B.C. 6,900; P. 61 per cent; L. 39 per cent. Blood sugar 72 mgs. per cent; N.P.N. 28 mgs. per cent;

calcium 9.6 mgs. per cent.

A hypodermic of morphine was given. This stopped her trembling, but she continued to complain of her precordial pain. Consciousness returned the following morning, without any recollection of the events of the several preceding hours.

Electrocardiographic studies gave negative findings. The x-ray of the skull did not reveal any evidence of increased intracranial pressure. Numerous urine analyses were negative. Blood sugars done on two consecutive days following the first one were seventy-one mgs. per cent and eighty-four mgs. per cent, respectively. B.M.R. was

minus thirty-six per cent.

Two months later she was readmitted for a more thorough and complete study. At that time the only complaint was almost constant backache, particularly over the lumbar region. Since her previous admission she had received in a haphazard fashion, on and off, thyroid extract grs. ½ and pituitary extract gr. one to three times a day.

Urine negative:

Glucose tolerance test

All the urines taken at the same time as the blood were negative for sugar.

Blood cholesterol 154 mgs. per cent; blood pressure 108/68; temperature normal; pulse varying from eighty to ninety; B.M.R. Aug. 1, minus thirty-one per cent; B.M.R. two days later minus twenty-two per cent.

She was discharged from the hospital and put on ½ gr. of thyroid extract three times a day, ½ hour before meals. She continued on this regime for almost one month, during which time her pulse and blood pressure remained almost constant, and there was a gain of 2½ pounds in weight, while the basal metabolism had dropped to minus fourteen per cent.

The thyroid extract was now increased to one grain three times a day, and another basal and glucose tolerance test was done on October 24. Glucose tolerance test this time was as follows:

Under this regime of thyroid therapy, the patient at the time of writing claimed not to tire as easily as before, since she was able to keep the same pace of work as the other nurses. She said that menstruation was less profuse than formerly and lasted only four days. She stated that she has not felt as well in approximately two years.

This case is interesting from several points of view. The first impression on physical examination is that the patient was a pituitary type of individual. It is known that disturbances in that gland do give low basal readings but not to reach the low levels of this case. Furthermore, the therapeutic test pointed towards a thyroid insufficiency. This patient did remarkably well with thyroid. She gained weight and the supervisor of nurses volunteered the information that there has been a marked improvement in her work on the wards.

The explanation for the hypoglycemic shock is theoretical but nevertheless of some interest. The thyroid is supposed to inhibit the pancreatic insulin function. With the thyroid markedly depressed, the pancreas excreted an excess of insulin which led to the attack. The glucose tolerance tests done at the beginning and at the end of the therapy show that in the former phase she utilized glucose much more rapidly than following the therapy. As to her precordial pain during her attack, I have seen several patients in mild insulin shock who had the same symptom.

Case 5. A young man, twenty-nine years old, a broker on the curb exchange, came in with this interesting story: One day during the 1929 crash he had retired to his private office for a rest. About two hours later he was found lying on the floor in front of his chair. On recovering consciousness, he could recall absolutely nothing of what had occurred. Since then, he has had many similar attacks, all of which occurred during his sleep. Some of these have been observed by members of his family, and they describe them as tonic and clonic convulsive seizures involving the entire body. There is some salivation, but never biting

of the tongue. Lately these attacks have become much more frequent, occurring as often as every two weeks. His wife and family lived in constant dread and fear of their appearance.

The patient's past history was essentially negative, except that: he had a very poor sexual libido; that he was considered lazy by all his friends; that he could sleep extremely long hours; and that he seemed always ready to fall asleep by merely sitting down in a comfortable chair.

Physical examination: Height almost six feet; weight 150 pounds; heart, lungs, and abdominal viscera apparently normal; blood pressure 100/60; pulse seventy; respiration twenty-five.

Neurological studies revealed practically absent abdominals, except for an occasional flicker of the left upper; depressed tendon reflexes. No other physical signs of focal disease of the nervous system were found.

Radiographic examination of the skull, made in the posteroanterior, anteroposterior, right lateral, and left lateral positions revealed no evident intracranial pathology.

Eye studies including perimetric examinations revealed nothing that would account for his attacks.

In doing a routine blood chemistry it was discovered that his fasting blood sugar was sixty-seven mgs. per cent. This suggested the possibility that this was a case of hyperinsulism, which depressed his blood sugar below his normal level, and led to the attacks. He was, therefore, put on a very high carbohydrate diet, frequent feedings especially before retiring at night.

The patient came in a week later with his wife, with the story that he could not and would not eat such foods, that he hated the diet, and that despite this diet he had an attack the night before, which he attributed to the food he ate before retiring.

A glucose tolerance at this time gave the following results:

10 ounces of water ½ hour later, blood sugar was....100 mgs. % 1 hour later, blood sugar was....100 mgs. % 2 hours later, blood sugar was.... 83 mgs. % 3 hours later, blood sugar was.... 76 mgs. % Basal metabolism minus 13 per cent.

To his high caloric diet was now added thyroid extract ½ gr. three times a day, a half hour before meals. On returning six days later, he reported that his appetite had improved somewhat, and his B.M.R. at this time was minus eleven per cent. Thyroid was increased to ½ gr. three times a day.

When he came to see me eighteen days later, he reported a marked increase in his

appetite and a greater interest in life. His wife remarked that "he had even attempted

to play bridge."

Physical examination revealed a more alert man. He had gained four pounds since his last visit and his B.M.R. was

now minus nine per cent.

During the following month I saw the patient several times, and each time he reported glowingly of his health: appetite was stupendous, had played eighteen holes of golf, danced, was able to stand liquor much better, and so on. Suddenly one morning, he and a friend of his appeared in the office with the story that while sleeping in his friend's room the latter had observed an attack. The patient himself had not been aware of it. This friend had seen him in

with the others.

On questioning the patient, I clicited the information that this past week had been very strenuous. Things in his office seemed to have gone awry. He had learned that his mother would have to undergo another operation. In addition he had not been as

regular with his thyroid as formerly. A

many previous attacks and stated that this

last one was extremely mild as compared

hasal metabolism done that morning was minus twelve per cent.

He was now put on one gr. of thyroid three times a day for three days, after which he was told to go back to his usual ½ gr. dose and told that whenever under any unusual mental or physical stress and strain, he must take one gr. of thyroid for a short period.

The last basal metabolism done before this writing was minus ten per cent. He had gained eighteen pounds in weight, had had no attacks, had an excellent appetite, and seemed all in all to be a different man, both his family and friends testifying to this.

The last glucose tolerance tests was as

During the entire period of thyroid administration, the patient's pulse varied between seventy and eighty and his blood pressure gradually rose from a low level of 100/60 to the last one 120/80.

This patient has been seen by several neurologists. All of them with the exception of one claim that he was suffering from idiopathic epilepsy. I am not in a position nor do I desire to dispute their diagnosis. They make it on the basis of

the description of the attacks. My contention, however, is that he is also suffering from hypothyroidism, and that it is quite possible that this may be the cause of his so-called epilepsy, and that after all it may not be idiopathic epilepsy. Even assuming that I admit the neurologists' contention that this patient is suffering from idiopathic epilepsy, I can see that the condition must be very latent, and is brought into activity only by the precipitating or trigger condition of hypothyroidism, which when removed causes the epilepsy to disappear.

L. H. Ziegler reported three cases in which he showed how latent psychotic and hereditary dispositions were brought out by hypothyroidism and disappeared

when the latter passed away.

The term myxcdema is misleading in two ways. A disease of the thyroid is called by one of its symptoms, and this symptom appears only in extreme cases. In thirty of my own cases of hypothyroidism I saw only two cases with myxcdema. Therefore—since because of long usage the term has come to stay—myxedema should be redefined, as hypothyroidism which may have, but in the great majority of cases is without the myxcdema symptom.

Hypothyroidism is, as are many other diseases, protean in its manifestations. The patient may come in with a report of anemia, constipation, weakness, tiredness, loss of appetite, nervousness, hallucinations, depressions, headaches, nerve pains, migraines, periods of collapse, precordial pains, frequent colds, or other infections. These are only a few of the chief complaints with which many of my hypothyroid cases came to my office. Every individual who comes to the doctor with any of these should have a basal metabolism done, and if that shows a borderline case. thyroid should be tried cautiously as a therapeutic test. It must never be given without the B.M.R.

Hypothyroidism to my mind is unquestionably a very common condition and one overlooked all too often. In the past ten years there have been published in the American literature more than thirty-two original papers on the subject, in which 511 cases of hypothyroidism were reported. In the last 100 basal metabo-

lisms done in my office, fifty-three were normal, seventeen were hyperthyroidisms, and thirty were hypothyroids. Only two of the last were myxedematous. In its mild form there are very few physical findings to indicate its presence. A good family history in reference to the thyroid may be of some help; a blood count giving a relative lymphocytosis may arouse your suspicion; but, above all, the final criterion is the basal metabolism and therapeutic test.

Remember in making an examination, the endocrines form a small portion of the body, but they control and regulate many important functions.

At times there is no clear-cut line of

separation between hypo- and hyperthyroidism. I have seen cases with symptoms of nervousness, sweating, tremor, increased reflexes, and tachycardia, which I thought were hyperthyroids, but the basal metabolism proved otherwise. In addition the hypothyroid individual may have a normal weight, be overweight, or underweight. It must also be realized that other conditions cause a lowered basal metabolism. These should be ruled out. If it cannot be done clinically, the therapeutic test will help.

The doctor should keep in mind always the valuable basal metabolism machine when studying a patient who baffles his clinical acumen. 1882 GRAND CONCOURSE

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ALCOHOL "SHOTS" FOR PNEUMONIA?

"Shots" of alcohol are now suggested as a possible treatment for pneumonia. This unusual remedy, still in the experimental stage, is described in the Journal of the A.M.A. in a translation of an article from the Indian Medical Gasette of Calcutta.

The article says the treatment had been used in but six cases of uncomplicated lobar pneumonia, but its developers were enthusiastic in reporting its success.

The alcohol, mixed as a twenty to thirtythree per cent solution in sodium chloride (common salt), is injected into the veins like any other intravenous "shot in the arm," Dr. I. Bakhsh and Dr. A. T. Andreasen, who developed the technic, explained.

The dose varies from twenty to twentyfive cubic centimeters daily, in either one or two injections. Their results, the two doctors described thus:

"Within an hour of the injection there was sufficient decrease in the intensity of the pain in the chest to allow the patient to sleep comfortably. It had completely disappeared within forty-eight to seventy-two hours after the first injection.

"Arrest of the process of consolidation in cases treated from the start of the disease The congestive stage was remarkable. gradually regressed, so that by the time the crisis occurred the involved lobe was almost free from any signs of pneumonia.

"In two cases in which alcohol was not commenced until the fifth day of the disease and consolidation had already set in, resolution was rapid."

STUDIES IN THE ECZEMATIZING PROPERTIES OF SOAPS

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Numerous references to soaps as a cause of dermatitis have appeared in the literature during the past few years Hazen,1 Weber, Hollander,3 Johnson,4 Stauffer⁵ and others have reported cases due to soaps. Many of the ingredients used in the manufacture of soaps have in themselves been reported as a cause of dermatitis Sodium silicate,7 oleic acid,6 stearic acid," naphtha," rosin," and olive oil have all been incriminated as a cause of eczenia Last year Osborne, Putnam, and Shunders8 reported twenty-eight cases of dermatitis in which soap ingredients appeared to be the exciting cause It was pointed out by them that in the performance of the patch test to determine whether a state of allergy to a soap solution existed, the soap dilution must be greater than that necessary to produce irritation from the alkali present. To our knowledge, no adequate studies have been made to determine how frequently sensitivity to the ingredients of soaps is encountered among individuals with normal skins and what role soaps play in the etiology of eczema

Stauffer,5 working in Bloch's clinic, is the only investigator who has reported any extensive patch testing with soap solutions He tested thirty-four patients with eight soft soans but did not mention the dilutions employed The alkalı content of these soaps varied considerably Of the thirty-four patients tested, twelve had normal skins Two of the twelve, approximately sixteen per cent, gave positive tests Twenty-two patients presented an eczematoid dermatitis, and of these, nine or forty-one per cent reacted strongly He also found that this latter group of nine patients gave positive patch tests to other known eczematizing agents Stauffer believed that the positive reactions to the soaps were not the result of their alkali content because soaps with the highest alkali content produced no more positive reactions than did those with the lowest alkali content

In carrying out this study, three groups of patients were patch tested with dilu tions of 1 100 and 1 400 of ten different sorp solutions Eight of these were commonly used toilet soaps and two, A and B. were hundry sorps. The patch tests were applied on the back of each patient and the results read at the end of twentyfour hours, and again after forty-eight hours. We attempted to accurately grade the reactions. A reaction of plus one consisted of a mild erythema. Plus one reactions were not regarded as representing allergy to soap solutions. They were so commonly encountered with dilutions of 1 100 that we believe they represent a mild irritation due to the liberation of free alkalı by hydrolytic dissociation of the soaps A reaction, graded two plus, denoted a fairly marked eigthema with slight elevation Two plus reactions unless present on repetition, are not convincing proof of hypersensitivity because of the difficulty in accurately grading any patch test. Plus three reactions denoted a marked erythema with definite elevation and occasionally slight vesiculation. Plus four signified marked erythema with definite vesiculation. We have included in the accompanying tables results obtained on all patients who gave three and four plus reactions, and who gave three or more two plus reactions

Altogether one hundred and fifteen patients were tested, requiring a total of twenty-three hundred patch tests. They were divided into the following groups

Group I This group consisted of seventy patients who had no dermatris and no his tory of any allergic manifestation Table I summarizes the definitely positive reactions which occured in this group Study of this group brings out the following points

1. Ten or 143% were considered to react positively with a minimum of three, two plus reactions.

2. Only one patient in the entire group of seventy gave a four plus reaction to one or more of the soap solutions and then only to a

dilution of 1:100 (case 9).

3. Only one patient gave a two plus reaction in a dilution of 1:400 (case 6). There were no three or four plus reactions with this dilution. It is evident then that when positive reactions do occur in individuals with normal skins that the reactions in almost every instance are mild and then only with a dilution of 1:100

4. Reactions to solutions of laundry soaps which tend to have a higher alkali content are in general no more severe, if as severe, as the reactions to toilet soaps. This bears out the observation of Stauffer that the alkali content is not the substance responsible for the strongly

positive reactions.

The definitely positive patch tests obtained on supposedly normal individuals indicates that these subjects are allergic to soap solutions. The fact that these patients reacted to soap solutions when contact was for twenty-four hours and yet were able to use soaps for ordinary purposes shows that a high grade of sensitivity is necessary to produce an eczematoid reaction on short exposure to a given substance. A positive patch test therefore, may or may not indicate that an individual will develop a dermatitis when exposed to the substance giving the positive test. The concentration of the offending substance, the duration of exposure to it, and the degree of allergy present in the patient's skin are of the greatest importance in the production of an eczematous change.

Group II. The second group consisted of thirty-eight patients who presented some form of dermatitis, nineteen of whom gave a minimum of three, two plus reactions. Table III shows the results of the tests in these nineteen cases. Analysis of this group brings out the following point:

Approximately fifty per cent of patients presenting any form of a dermatitis can be ex-

pected to react to patch tests of soap solutions This percentage compares with that obtained by Blocho in testing eczematous patients to ten common eczematizing substances. He found that thirty-five per cent of these patients reacted strongly to one or more of the ten test sub-stances. In view of the fact that fifty per cent of eczematous patients react to soap solutions, this is further evidence that a large percentage of eczematous individuals are polysensitive. This belief is shared by Bloch, 10 Klauder, 11 Williams, 12 and others. Therefore, in an eczematous patient the etiology of the dermatitis may be one of several eczematizing sub-stances. The fact that a patient with a dermatitis reacts to a certain substance does not prove that the dermatitis is due to that substance since reactions may frequently be obtained to many substances. In testing any patient with a dermatitis, further proof than a positive test is necessary to established the etiology of the dermatitis. The dermatitis must clear up when the substance is withdrawn from contact with the skin and the dermatitis must recur when reexposure occurs.

The reactions of this group of patients with a dermatitis were much stronger than in the group of patients with normal skin. Fourteen of the nineteen patients who reacted gave one or more four plus reactions to a dilution of 1:100 as compared with only one four plus reaction among the individuals with normal skins. Here as among the normal patients the reactions are no more severe from laundry soap solutions than from toilet soap solutions. As in the previous group of patients with normal skins, this group also shows but very few three and four plus reactions to soap solutions in a dilution of 1:400. Although no definite conclusions can be drawn as to the place of soap in the etiology of the dermatitis in these patients, many of them did improve when soap contacts were stopped.

Group III. The third group consisted of seven patients who had a history of other than cutaneous allergy such as hay fever, asthma, or urticaria. Four of these patients gave a minimum of three, two plus reactions

TABLE I.—PATIENTS WITH NORMAL SKIN AND NO HISTORY OF ALLERGY WHO REACT STRONGLY TO SOAP SOLUTIONS.

							1	0 of	70 T	estec	l—14	.3%								
Soap		L	I	3	(7		D		E		F		\overline{G}		11				J
Dilution Case No	1-100	1-400	1-100	1-400	1-100	1-400	1-100	1-400	1-100	1-400	1-100	1-400	1-100	1-107	1-107	1-407	1-100	1-400	1-100	1-400
1 2 3 4 5 6 7 8 9	1 3 2 2 0 0 3 2 1 2	0 0 0 0 0 0 0 0 .1	2 2 2 1 0 1 0 0 1 1	0 0 0 0 0 0 0	2 1 1 0 0 0 1 4	0 0 0 0 0 0 0	2 1 2 2 0 2 0 3 4 2	0 1 0 0 0 1 0 0	1 1 0 2 0 0 0 1 3 2	0 0 0 0 0 1 0 0	1 2 0 3 2 0 0 0 0 2	0 0 0 1 0 0 0 0	1 3 0 1 0 0 0 1 3	1 0 0 0 0 0 0 0	0 0 0 2 0 2 1 3 1	0 0 0 0 0 0 0 0 0 0	0 1 0 2 2 0 0 2 4 0	1 0 0 0 0 0 0 0	1 0 0 0 2 2 0 1 4 3	0 0 0 0 1 2 0 0

to the sorp solutions. Although this group is too small from which to draw definite conclusions, the results indicate that a considerable percentage, probably at least fifty per cent, of patients presenting any form of illergy are apt to react to eczematizing substances. If this be the case, a careful history of allergy should be elicited from each patient subjected to patch testing and the results evaluated on the basis of the above observation.

There are many substances present in soap solutions which are capable of producing a dermatitis. Table II presents an analysis of the ingredients of common toilet and brundry soaps. Sodr ash, sodium carbonate, sodium silicate, borax, and tri-sodium phosphate are negligible quantities in toilet soaps, but of importance in laundry soaps. The fact that no more reactions occur with laundry soaps than with toilet soaps suggests that these ingredients, although they may cause a dermatitis in isolated instances, are not the principal eczenitizing substances in

soaps

In Table II the free alkalı refers to the alkalı present ın an alcoholic solution of soap. The percentage is very small However, in aqueous solution hydrolytic dissociation takes place with the liberation of hydroxyl ions and the fatty acid radicles present in the particular oil or fat which was used in the manufacture of soap The degree of hydrolysis depends upon which fats or oils are em ployed Since many different fats and oils are used in the manufacture of soaps, the amount of hydrolysis that takes place in aqueous solution is different for each soap Therefore, the number of hydroxyl ions and fatty acid radicles will vary depending upon the fats and oils used in the manufacture of a given soap During recent years an increasing number of cheaper fats and oils has been used in the manufacture of soap Since previous reports have appeared of determatitis due to the commoner fatty acids such as oleic, stearic, and palmitic, it is obvious that other fatty acids which thus far have escaped our attention should be investigated for their eczematizing properties

In addition to the fats there is a long list of miscellaneous ingredients, any one of which may or may not be present in a given soap, but which are capible of

producing a derinatitis in an individual specifically hypersensitive to the particular ingredient. This list includes at least thirty perfumes and essential oils, gum, resm, animal products, medications, dyes, and metallic salts used as preservatives. It is obvious that it is impossible to determine the exact eczematizing substances in any given soap unless a complete list of the ingredients used in its manufacture is available.

Conclusions

1 Approximately fourteen per cent of individuals with normal skins reacted to dilute soap solutions A positive patch test, therefore, does not always mean that an individual will develop an eczema when exposed to a substance giving such a test

2 Approximately fifty per cent of individuals with a dermatitis reacted to dilute soap solutions. Four out of seven individuals with other forms of allergy reacted to dilute soap solutions. These results indicate that polysensitivity is common among eczematous patients and that a careful history of allergy is of great importance in the interpretation of patch tests.

3 A soap dilution of at least one to one hundred and preferably also a dilution one to four hundred should be employed in the performance of the patch test

4 Mild erythema without papules or vesicles should not be regarded as a positive finding

5 The alkalı content of soap on solu-

TABLE II — SUBSTANCES WHICH MAY BE PRESENT IN TOILFT AND LAUNDRY SOAPS

	Ingredients	Toilet Soap	Laundry Soap
1	Soda ash Washing soda Sodium assente Borax Tri-sodium phos phate	05% to 1 33%	45% to 18 78%
2	Free alkali	0 to 08%	02% to 13%
3	Free acidity	0 to 4 86%	02-8 00 1070
4	Abrasives	Trace to 1 08%	0 to 3 89%
ś	Rosin	Few	0 10 3 03 70
2 3 4 5 8	Fats	Mutton and beef tallow castor oil, cocounut oil palm oil whale oil and palm kernel oil.	O to 1900 Maize oil cotton seed oil bon- fat and others.
7	Miscellaneous	At least 30 perfumes, including essential oils gum ream, animal products synthetic perfumes medications and metallic salts.	

used as preservatives.

Table III.—Patients with a Dermatitis who React Strongly to Soap Solutions 19 of 38 Tested—50%

•		B		S		a		1		. }		, {					18	(?	Results when roaps were
199	Dilution 1-100 1-400 1-100 1-100 1-100 1-100	1-100	1-100	1-100 1	001-)	[-400 1-100 1-400 1-100 1-100 1-100 1-400 1-100 1-400 1-100 1-100 1-400	100 1-	400 1-1	11	00 1-10	00 1-40	0 1-100	1-400	1-100	1-400	1-100		
,	·	c	-	c	т		-	61	2	8	2 0		-	61	0	0	0	7	Dermatitis neck, trunk, and arms, three years; history of asthma: unimproved.
4 (ı -	, -		0	0	-	-	0	0	-	0	0 0	0	c	CI	0	7	0	Bezema since infancy; family history of asthma: unimproved.
۰ ۲	- c	۰ ,	. 0	, 71	_	4	-	-	0	-	0	3		0	0	-	7	***	Dermatitis of face, trunk, arms for four months: unimproved.
- +	; ,	. ~	,			7	7	т	0	7	0	7	0	ю	**	61	-1	-	Localized dermatitis, right knee, six months: unimproved.
-	, c	1 10		100	۲۰	11	7	7	0	0	0	0	0	0	7	0	-	0	Sulphur dermatitis, one month; history of asthma: unimproved.
٠ ،	, c	4	0	4	0	2	0	4	0	ю	0	61	0	0 ~	60	0	4	0	Scattered patches of dermatitis on trunk seven months: unimproved.
17 0	· •	· 10	0	4	0	-	0	0	0	4		m	•		+	0	4*	0	Periodic outbreaks dermatitis of hands for six years. Skin normal when tests applied.
,	-	4	0	ю	0	4	1		-	0	0	0	-	0	4	+	0	0	Recurrent dermatitis of face, eight years; outcome unknown.
190	. 0	. 6	1	2	-	**	1	4	1	-	1				8	pref	c:	0	Dermatitis hands, scattered areas on arms, and trunk for nine years: out come unknown.
:	0	0	0		0	1	0		0	0	0	7	0	0 0	7		•	-	Generalized subacute dermatitis, four- teen weeks: improved.
	0	#	0	7	***	,	8	٨.	0	٨,	0	3	,	9	7	0	7	-	Recurrent dermatitis face for ten years: improved.
22 3	0	63	0	0	0	=		0	0	0	0	0	0	0	4	1	0	0	Periodic outbreaks of face and neck, four years: improved.
: ;		7		73	-	7	1	1	-	-	0	2		-	-	1	6	0	Mild dermatitis trunk, one month: clear-
:	1 0	0	-	4	1	4	-	4	4	4	4	0	-	-	₹*	1	4	C)	Periodic outbreak, acute dermatitis fo- eight years: clear,
25.	1 0	7	-		~	ĸ	1	ъ	1	1	0	61		~ ~	4	-	ю	0	Recurrent attacks, arms and legs for ten years; improved.
	0	-	-	2	-	ĸ	1	8	0	ю	-	7	_	1	-	0	7	0	Dermatitis dorsum hands, one and one half years: immediate improvement.
	2 2	4	61	7	7	7	æ	3	-	2	***			3	-	-	7	0	Dermatitis face and neck, three weeksimproved.
28		0	-	4	-	4			0	0	0	8	0	0	0 2	0	CI	0	Dermatitis dorsum hands, one year: improved.
	7	3		7	CI	-	0	4	0	7	0	2	0	3	0	1	7	61	Recurrent dermatitis of arms, four years:

tions is of minor importance in the production of eczema The fatty acids formed on hydrolytic dissociation to gether with the many miscellaneous ingredients of soaps, most of which are known eczematizing agents, seem to us the most likely etiologic factors in the production of eczema due to soap

6 We believe that soaps are definitely the cause of some cases of contact eczema and a contributing factor in many others

7 Patch tests properly performed and interpreted should be of great aid in the diagnosis of soap eczema

471 DELAWARE AVE

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Discussion

DR LOUIS TUILIAN, New York City-Dr Louis Schwartz and I recently reported in the U S Public Health Bulletin on Dermatitis Amongst Silk Throwsters who who were sensitive to various types of soap We found, in our patch tests that the soap solution of 121/2 per cent strength was irritating to almost all the girls in this particular factory, when the patch tests were left on for twenty-four hours Some of the girls were also sensitive to a three per cent so'ution A sixteen per cent solution was made from edible olive oil. We found that this was less irritating than that made from sulphur olive oil foots. Our tests also showed that a dermatitis was caused principally by sensitivity to soap made from sulphur olive oil foots and ilso to a lesser degree to cresyhe acid used in anti-milden solution. Of course, the fact that a good many people do not show a dermatitis from the use of soap in their daily washing is simply due to the fact that it remains on the skin but a short

HERE IT IS IN A NUTSHELL

"We want no socialized medicine! They tell us that socialized medicine will raise the standards of medical practice as a whole I tell you that it will inevitably lower the standards of medical practice, and that standards have advanced faster in the United States than in any country having a system of socialized medicine

"They tell us that socialized medicine will strike a death blow to quackery and cult ism I tell you that Germany, after fifty years of compulsory health insurance has become the happy hunting ground for quacks and is the only nation in the world to give official recognition and endorsement to practically all forms of quackery

'They tell us that socialized medicine will eliminate economic waste. Its first result is the employment of as many salaried administrators to manage the system as there are doctors to give service

'They assert that socialized medicine will encourage preventive medicine and immunization I have shown you that immunization and preventive medicine are more successful in the United States today than in any other country in the world

"They say that workers under socialized and compulsory health insurance systems are better off than are our own workers Let our workers lose only from eight to thirteen days a year on account of illness, and the average wage carner in countries having compulsory insurance loses from fifteen to thirty days a year

'The figures published last week by the largest industrial insurance group in this country show the highest rate of health for American workers ever achieved anywhere in the world. With a medical profession such as we have now, with the standard of living such as is now available for the vast majority of the American people, with a government ready to assume responsibility for the care of the indigent sick, the determinition of the kind of medical service they vant should be left to the people of the country and to the medical profession the only group qualified by training, by experience and by law to say how medicine shall be practiced "-Dr Moriis Fishbein, at 'America's Town Meeting of the Air,' New York, March 5

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THE PROBLEM OF THE BROKEN HIP

JOHN J. MOORHEAD, M.D., New York City

It is a reviling reflection that the largest joint in the body is, more often than all other joints combined, the scene of nonunion with accompanying disability. To explain this tragic outcome there has been much speculation, and until recently, very little factual evidence. We hitherto ascribed the unfavorable outcome to some of the following:

1. The age incidence, because fracture of the neck of the femur was presumably an index of osseous senility. That viewpoint however is negatived because nonunion in this joint occurs also in the young and in the middle-aged; and it is a traumatic surgery axiom that articular fractures almost without exception in all other sites unite with great regularity. We of course concede that an aged patient is a poor surgical risk for any pathologic exigency; and a broken hip entails shock and a resistance that often is beyond the reserve capacity of any or-

ganism aged in years.

2. The anatomical incidence, because the neck of the femur is a zone of known poor healing capacity due to (a) the cross striae of structure; (b) poor blood supply; (c) desiccation in a closed space (the capsule) whereby blood and serum set up what virtually amounts to digestive action; (d) the interposition of the capsule or bony spiculae between the fragments, in effect causing a spontaneous arthroplasty; (e) the slow healing under the best of conditions in an area designed to support superimposed weight at an angle of 130 degrees and not in a straight line such as prevails in any other weight bearing joint. As opposed to these deterrents we occasionally have a patient presumably of poor surgical fiber who functionally recovers, thus confounding our predictions enough to reawaken interest in this problem fracture.

3. The treatment incidence, because there is no known method by which assurance of union is guaranteed. The complete immobilization in plaster of Paris is no longer regarded as the best safeguard; and the strange situation is here presented of immobilizing this joint fracture when the best teaching recommends mobilizing all other joint fractures. It is paradoxical to advise immobilization in the joints that heal worst, and yet advise mobilization in the joints

that heal best.

4. The tissue resistance incidence, because many of the patients with broken hips are arteriosclerotics, cardionephritics, diabetics, or potentially tissue bankrupts.

Now these four elements—the incidence of age, anatomy, treatment, and tissue—present a problem that is so confusing that it is a safe assertion to say that the management of this large important group is not yet standardized enough for any surgeon to assert that any given method is the best for *all* cases. There is only one other fracture in which the same confusion of ideas exists, and that is fracture of the os calcis.

However, in the very recent past certain features as to broken hips have been clarified and the author ventures to call to your attention some of these developments.

Diagnosis. It is now recognized that inability to lift the injured limb with the knee straight is the best single evidence to distinguish between a contusion-sprain and a nondisplaced fracture.

In line with this is the opinion that dislocation of the hip is an exceedingly rare occurrence, and hence that diagnosis should be made last and not first. With a fairly active opportunity to observe the injured, the author has not seen more than half a dozen hip dislocations in his experience.

X-ray diagnosis is of course the best evidence; but we must not forget that an immediate negative or doubtful x-ray may within a few days give unmistakable indications of fracture. Hence if there are any clinical evidences of fracture, it is the part of wisdom to treat for fracture until the lapse of time or subsequent x-rays indicate the actual situation.

Treatment. Early reduction means easy reduction, and this axiom is just as applicable in the hip as elsewhere. This does not mean that in an aged patient we should at once undertake heroic treatment without first giving opportunity to recover from physical and psychic shock. With this in view my plan is to apply adhesive straps to the entire length of the thigh, bend the knees, permit a semiseated position, and put on ten to fifteen pounds of traction with the limb abducted and rotated inward. This procedure will prevent muscular retraction

and assess the ability of our patient to withstand recumbency, and incidentally tide over the first days of shock, physically and mentally. It is possible to carry some patients throughout the entire period of healing by this procedure, notably that group in which reduction is promptly attained, and that other group rebellious to any fixed type of immobilization. A very thin or a very fat patient is a poor subject for plaster fixation, irrespective of age limits. The ideal surgical type of patient for a fractured hip is the old lady who weighs less than 130, the irrepressible flapper who at eighty has vim and punch and agility enough to shame her children and even her grandchildren. The author terms her the "wren type" because she is always flitting, has never been abed under a doctor's care since her last baby was born, and even then she was up and about within a fortnight. To subject a perennial of that sort to prolonged splintage will wreck the physique and the morale and invite catastrophe. They are like storage batteries, active enough to turn the machine over if used daily; but if idle, the vital fluid becomes inert and ceases to function.

There are then certain types of physique to consider before determining the appropriate kind of treatment. This means, to repeat, that there is no one best kind of treatment for every case; no set form of procedure is universally applicable.

With that in view, let us assay our prospective patients and place them in three grades based on the excellence of their physical stability, irrespective of the age

bracket.

Grade A

This patient is of good general physique; there are no gross pathological defects of the cardiovascular-nephritis, pulmonary or digestive systems, diabetes included. The morale is excellent, the weight is not excessive and the cooperative will to get well is excellent.

Grade B

This patient is of fair general physique; there are some pathological defects of the cardiovascular-nephritic, pulmonary or digestive systems, with perhaps inactive diabetes. The morale is unstable and cooperation is under forced draught.

Grade C

This patient is of poor general physique; there are definite pathological defects of the cardiovascular-nephritic, pulmonary or digestive systems, and diabetes exists. The morale is poor and cooperation is almost wholly lacking.

To be sure we meet with hazards of this same sort in all the traumata, but the point is that a fractured hip may mean a year of supervision and there is no comparable period of needed professional care for any other medical or surgical ailment. The nearest approach from a time standpoint is the prenatal and postnatal care of an obstetrical patient. Another point is that a fractured hip is an affliction of the aged usually occurring in a person poorly adapted to withstand any surgical contingency.

Hence before we decide on any line of treatment we should grade our risk, classify our patient as being in the A or good, B or fair, C or poor group. Again let it be asserted that the treatment should be based on the physical capacity of the patient more than upon the site or type of the lesion. It is customary to refer to two types of fracture of the neck of the femur; namely those in which the fracture line lies close to the head-the intracapsular, or base of the neck or central group. The other group shows the fracture line to be extracapsular, subcapital, or marginal. In this latter group, the prognosis is better because in effect these rate as high fractures of the shaft and to that end the outcome more nearly approaches that of a shaft fracture. The third group, the intertrochanteric, is not within the domain of this discussion.

Treatment

The C group are actual risks and with patients of this type the steps in management may be said to be the following:

- 1. Semiseated position made possible.
- Knee bent fifteen to thirty degrees in a hospital bed or with a pillow or bolster under both knees.
- 3. Adhesive straps applied along the lateral margins of the entire thigh, each strap about three inches wide. Moleskin adhesive is best, and to hold it in place, spirals of zinc oxide adhesive and a bandage are added. Use care near the back of the knee to prevent pressure.
- Abduct the thigh to the limits of comfort, gradually increasing this abduction as far as possible.
- 5. Attach a weight of ten to twenty pounds to the "spreader" of the adhesive.
- 6. Place an (x) mark on the center of the patella and instruct the attendants to keep this mark pointing straight upward; if necessary, prevent external rotation by placing a lift under the side of the mattress.
- 7. If possible, provide an overhead handle so that the patient can pull upon this to aid in change of position; incidentally this aids in circulation.

Comment

It will probably require twelve or more weeks before union enough is attained to allow removal of this or any form of fixation. The test of union is ability to lift the straight limb off the bed and to rotate the limb in and out, especially the former. Add to this, no pain in the hip on pounding the knee or heel. From now on, treatment varies as between crutches and a walking calipers; or a short spica of plaster of Paris from above the navel to above the knee. If this latter is used, cut out the side opposite to the fracture so that some freedom of motion is possible. Let the patient walk in the calipers or plaster, using crutches or an "invalid walker," this last being a glorified "creeper" such as is used for children.

Now this kind of management is just as safe and just as easy as the do-nothing plan of "making the patient comfortable" by using sand bags to prevent rolling out of the limb.

The B group of fair physique are treated in the same manner as the preceding, at least until shock has disappeared, and the patient is accustomed to recumbency. From then on, reduction having been obtained by the traction, we can make a choice as to the desirable definitive treatment. This may consist of a plaster of Paris casing or some form of operation. Usually we can determine the kind of management by the response of the patient and the response of the limb to the preliminary traction. Some patients do so well that we are emboldened to change their rating from the B or fair to the A or good physique grade, and if so we proceed accordingly.

There is no special need for haste in changing from the traction to another type of treatment because a period of a fortnight may elapse without harm inasmuch as the traction has been acting as a reduction and fixation agent in the interval. We must not forget that this major joint under traction can be controlled just as fracture of the spine and fracture of some long bones can be thus controlled.

The author is opposed to the immediate immobilization of any fractured hip in a plaster spica unless the physique is excellent, and there is no shock nor accompanying injuries.

The A group, or good physique group, are treated more actively, but many of these should be subjected to a period of adhesive strap traction to tide over the initial stage of shock. From this point on the choice is between nonoperative and operative management.

If we decide on the nonoperative regime, reduction is obtained and checked, and then a plaster of Paris spica is applied to the involved side from the toes to above the umbilicus. It is an added safeguard if plaster is applied to the opposite limb as far as the knee, a crossbar then being placed between the thighs. This last (using a broomstick) acts as a brace and it is also an excellent handle for turning the patient.

After the plaster is applied, an x-ray film is taken to check the pre-plaster film. Another film should be made within the next three weeks, and thereafter check-up x-rays can be made at six weeks or other intervals.

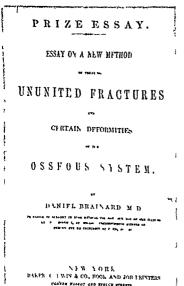
In favorable cases, callus formation may appear after six or eight weeks; but even if this encouraging prospect is evident, we must not forget that absorption of the neck may still occur even after union is apparently well-advanced. Indeed this process of decrescence (becoming less by gradual diminution) may occur any time within a year, and thus we must guard the prognosis. The author knows no way by which we can be certain that one case will unite and another will not unite; the lapse of time alone is the sole criterion. The plaster of Paris casing is usually removed after twelve or fourteen weeks and then a test is made as to the state of union by x-ray, and also by guarded motions of the patient, notably the ability to lift and rotate the limb. If now union is apparent, then a short spica is applied, the plaster reaching from below the umbilicus to above the knee. Crutches can be permitted and the patient thus becomes partly ambulatory; but no weight bearing is permitted at this stage. After four to twelve weeks, a walking calipers splint is fashioned, and thus at about six months post-trauma the patient is walking, but in this splint the heel is separated from the shoe by a space of one-half inch or more. When is unsupported weight bearing allowable? The answer is when straight leg lifting is possible; when rotation and abduction and adduction are apparent, and when pounding on the heel or knee causes no reaction in the hip

This cannot be stated in terms of the calendar, but on the contrary can only be stated in terms of ability to function as demonstrated by the mentioned signs that the author calls "tests of usage," aided of course by check-up x-ray films

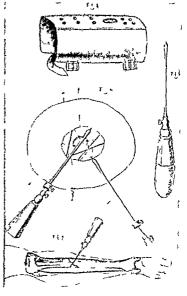
Now the difficulty with this plan of management is that the x-rays are not always an infallible guide as to the accuracy of reduction, even though the films are mide from below-up or abovedown, in addition to the standard exposures. Hence we are beginning to resort to open correction, meaning thereby actual palpation of the fracture line through a three inch vertical incision over the great trochanter This is an excellent procedure, and in appropriate cases it is a method of choice The author is convinced that many cases of nonunion of the hip arise from the basic factor causing nonumon elsewhere-namely, failure to attain apposition because of intervention of fragments, usually the capsule or bone spiculae. This incision hence gives notice as to the success or failure of our reduction, and it is made, of course, with the patient on the table ready for plaster or any other type of treatment.

However, we may not wish to apply plaster and if so there are two alternatives (1) the introduction of a nail, or (2) the introduction of several wire drills

Nails and screws have been used for over thirty years with varying success, but comparatively recently the flanged nail popularized by Smith Petersen has apparently been successful in a large group of patients. This method has the merit of not requiring any additional splintage and it shortens the in-bed period. The use of wire drills, three or more, is being tried out but as yet too few cases are on record for actual appraisal. It is claimed that wire transfixion thus used enables the patient to get out of bed in a few days and even to walk with safety shortly thereafter without splintage.



1854



To pass a nail or wires along the desired route is no easy matter and a number of expedients are advised to prevent error. Hence this procedure is not a method to be employed by the inexperienced.

Also let it be mentioned that passing drill holes across the femoral neck is recommended for the purpose of aiding union just as it is now employed in certain cases of nonunion. Incidentally, this drilling for nonunion is ascribed to Beck of Kiel (1929) but actually it was published by Daniel Brainard of Chicago in 1854 who devised an awl-like instrument then known as "Brainard's Perforator." (See accompanying illustrations.) There is nothing new in traumatic surgery!

For completeness let us not fail to mention the Maxwell-Ruth and Russel traction methods; nor must we forget ambulatory splints, nor yet the ingenious device of Anderson.

Hence we are confronted with a wide choice but the consensus of experienced opinion recommends the following: 1. For the poor physique group, adhesive strap traction.

2. For the fair physique group, plaster of Paris casing with or without preliminary incision for (a) determining accuracy of reduction; (b) drilling the fragments.

3. For the good physique group, plaster of Paris casing with the preliminary incision and drilling of the fragments; or transfixion by the Smith-Petersen nail, or wires.

There is one group that demands home care for a variety of reasons, and often the nursing facilities are meager. For that kind of problem, especially if the patient is of the "wren" type, use a kitchen chair, cutting out the seat for strategic purposes. Place the patient in this padded chair and fasten the seated patient thereto by plaster of Paris, the injured limb flexed at the knee and abducted. This is what the author calls the sitting-up-casing and the patient and the chair can be carried or rolled about, and at night the patient and the chair go to bed and remain attached to each other until union is obtained.

115 EAST 64 ST.

"IT'S NOTHING BUT A LITTLE COLD"

Despite the fact that "no reputable physician will tell you that he can cure the common cold," anybody who has one should "go to bed and call a good doctor," declared Dr. Robert Jolly, of Houston, Texas, at the American Surgeons' meeting in Buffalo. True, we have not isolated the cold germ, and there is no cure, "yet," said Dr. Jolly, "the common cold is one of the worst menaces.

"The death rate from pneumonia is the fourth largest in the United States. And most cases of pneumonia come as a direct result of the common cold.

"Much of tuberculosis grows from the cold. And virtually all of sinus trouble can be traced to that source.

"There are many children doomed to go

through life with the misery of sinus trouble because their mothers regarded the cold as unimportant and were not careful in employing preventive measures.

"But the cold is a menace.

"If you take cold, go to bed and call a

good physician.

"Try to tell this to the average person and he laughs at you. But, as a matter of fact, one gains economically by that procedure. Go to bed for two or three days instead of dragging around for a week or two with one-half your normal efficiency and you will find that you have gained in the long run.

"When you are taking cold, alkalinize your system by taking the juice of a citrus fruit or by drinking soda and water. That is the

best treatment."

A USEFUL COMPENDIUM

We are asked by the Assistant U. S. Surgeon General in charge of the Division of Venereal Diseases to call the attention of physicians to the monthly publication, Venereal Disease Information, issued by the U. S. Public Health Service. It provides a summary of the scientific developments in the diagnosis, treatment, and control of syphilis and gonorrhea. More than three hundred American and foreign journals are reviewed. Abstracts are made of

articles describing laboratory, pathologic, and clinical work. The cost is fifty cents per annum, payable in advance to the Superintendent of Documents, Government Printing Office, Washington, D. C. It represents only a small portion of the total expense of preparation, the journal being a contribution of the Public Health Service in its campaign with State and local health departments against the venereal diseases.

A SIMPLE, INEXPENSIVE APPARATUS FOR PRODUCING AN ARTIFICIAL PNEUMOTHORAX

NORMAN STRAUSS, M.D., F.A.C.P. and

GEORGE H. KOJAC, M.D., Bronx

From the First Medical Division Morrisania City Hospital

The purpose of this contribution is not to discuss the therapeutic value of pneumo-thorax in the treatment of pulmonary tuber-culosis, nor to discuss the indication or contraindications of this procedure, but only to present a simplified and very inexpensive method of producing a pneumothorax.

The machine now in use is based upon the principle of air-displacement by water. Two large bottles containing water are connected by an inverted U tube. One bottle is raised higher than the other. Water seeking its own level, will flow from the higher to the lower bottle. The water flowing into the lower bottle will displace an equivalent amount of air—this displaced air is carried into the thorax. This method is efficient but the apparatus is bulky and cumbersome (Fig. 1) and is very expensive

The new apparatus is based upon a different principle entirely. It employs an X-Acto Bi-Valve Adapter. (Fig. 2-3). This is an all-glass adapter ground to fit any Luer type syringe. The adapter has two legs each with a ground in glass valve moving in opposite directions. When the plunger of the syringe is drawn out, the suction created opens the intake valve (A) sucking in air and automatically shutting off the outlet valve (B) When the plunger of the syringe is pushed home, the pressure created reverses the operation and the air is expelled

A rubber tube is attached to the outlet leg and the needle is connected to the far end of the rubber tube

The needle (C) is inserted into the thoracic cavity in the routine fashion By simply rhythmically withdrawing and pushing home the plunger of the syringe, air is forced into the thoracic cavity.

We employ a fifty c.c. syringe—the number of cubic centimeters of air expelled into the cavity is thus easily measured by simply counting the number of syringe-fuls of air injected.

The system is connected to the manometer (D) with a three-way petcock (E) as shown in the diagram. The pressure within the thoracic cage can be determined at any time.

This new set-up costs about one-third as

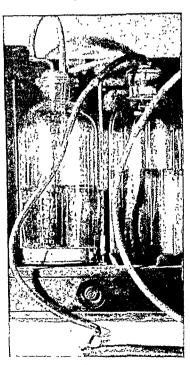


Fig. 1

Read before the Clinical Society, Icwish Memorial Hospital, New York City, April 14, 1936; also read at the Clinical Meeting, Mount Vernon Hospital, April 1, 1936

Sacroiliac disease	2
Pleurisy	
Gastroenteritis	
Streptococcus knee joint	l
Sub-acute bacterial endocarditis 1	l
Alcoholism	l
Diabetes 1	l
Empyema	2
Meningitis	

For purpose of analysis the series may be divided into (A) hematological and (B) clinical effects.

A. These concern themselves with studies made of white blood counts and differentials made before and after the use of salipyrine. The routine followed was to do a white blood count and differential the day treatment was started and then to administer one tablet (71/2 grains) every four hours for eight doses. A count was made on the second day and a third count was made at the conclusion of the course of medication. In a certain number of cases in which the symptomatology was severe the dosage was doubled so that the patient received 120 grains in the course of forty-eight hours. Shilling counts were done and in no instance did it appear that any depressant action either upon the total white count or percentage of neutrophiles occurred. Drops in total counts occurred but were apparently due to drop in the febrile course of those cases presenting acute infection.

B. The clinical results most striking were in the series of cases of rheumatism and in particular those of acute articular rheumatism with red, swollen, painful joints, and elevation of temperature. The drug appeared to be efficacious in the treatment of these cases as evidenced by prompt reduction of pain, redness and swelling of the affected joints, and a drop in the temperature curve. Another group of cases were those of upper respiratory infection such as pharyngitis, laryngitis, bronchitis, and follicular tonsilitis in which the symptoms of generalized body pains, headache, malaise,

and temperature were present. There seemed to be considerable relief of all symptoms under this medication.

connection with the rheumatic group it was of interest that the cases that proved to be of gonorrheal origin were not relieved until suitable methods of specific treatment were instituted. A small group of menstruating women (2 interns) were given the drug in connection with blood studies with no untoward blood effects. Menstrual pains, however, were not lessened. It is of interest that none of our cases developed ringing in the ears or gastric disturbance such as one frequently encounters in salicylate treatment, although no soda or other alkali was used.

Conclusions

The literature studied as well as our own cases would lead one to believe that the production of neutropenia in connection with the use of drugs containing the benzene ring probably depends upon individual idiosyncrasy to this type of drug.

From the foregoing, it would appear that salipyrine may be safely employed with excellent clinical results in cases calling for salicylate therapy and that its action is exerted without deleterious effect upon the blood.

125 E. 63 st.

References

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ANOTHER POINT TO REMEMBER

High school students in their consideration of the "desirability" of socialized medicine, says the Bulletin of the Eric County Medical Society, should read with some interest the following admonition by William A. O'Brien, M. D., Minneapolis, Professor of Pathology and Preventive Medicine and Public Health at the University of Minnesota:

"The confidential relationship between physician and patient that exists under our present system of medical care would be impossible under any conceivable system of state medicine or sickness insurance. Patients find it hard enough to divulge essential personal information to the doctor when they know, as they do now, that this information will be held confidential. Under any state system the physician's records would of necessity become public property. Inevitably, that patient would become more secretive and treatment would suffer,"

THE ADVANTAGES OF A SINGLE BEGINNING DIABETIC DIET FOR ADULTS

JAMES RALPH SCOTT, M.D., F.A.C.P., New York City Associate Physician, St. Luke's Hospital

The prevailing tendency in diabetic diets is toward simplification and an approach to the normal. Before the introduction of insulin thirteen years ago the diagnosis of diabetes mellitus in a child was equivalent to a death sentence on any diet. Older diabetics were condemned to a low carbohydrate-high fat regime which was not only unnatural and unpalatable but was a constant menace because of its high ketogenic composition.

With the discovery of insulin, however, an opportunity was afforded to experiment with diets of varying carbohydrate content. As a consequence not only was the diabetic child saved from extinction and the ketogenic diet of the pre-insulin era rendered unnecessary, but it was discovered that in a diabetic patient controlled with insulin the higher carbohydrate allowances actually improved the glucose tolerance so that the initial insulin dosage could sometimes be reduced even with increasing carbohydrate allowances.

It was found that in the controlled diabetic, carbohydrate acts as a normal stimulant to the pancreas, but in the uncontrolled diabetic, carbohydrate is only an additional burden to an already exhausted pancreas. This is particularly true if the fat content of the diet is maintained at a low level-as near as fifty grams as possible. As a consequence of these changes the diabetic diet now approximates that of a normal person. This of course is possible only with the aid of insulin, but less insulin per gram of carbohydrate is required with the modern diets than with the older ones. This newer conception of the normal diabetic diet is due to the courageous and original work of Geyelin, Sansum, Rabinowitch, and others.

Not only is the modern diet more normal but the process of adjusting a patient to his proper diet is much simpler than formerly. Ten years ago at St. Luke's Hospital a diabetic patient on admission was subjected to the following routine:

His theoretical caloric requirement was calculated from tables based on age, sex, height, weight, and surface area. The indicated caloric needs were then supplied by selecting one of six or eight diets, over fifty per cent of the energy of which was supplied by fat. On this diet, without insulin, the number of grams of glucose exercted in the urine in twenty-four hours was determined. Insulin was then given at the ratio of one unit of insulin to two grams of sugar excreted. Quantitative determinations of glucose and the CO₂ combining power of the blood and of the glucose in the urine were the sole guides to therapy.

Today the process of regulating a patient is much simpler, less time consuming, and more effective. Because it has been found that each patient's caloric requirements are peculiar to himself, and conform to no predetermined theoretical calculations, no attempt is made to calculate them. Gain or loss or maintenance of weight is regarded as the most reliable guide to the caloric requirements of the patient.

On admission the patient is placed on the single admission diet of C-120 grams P-65 grams F-50 grams-1190 calories. A fasting blood determination is done for glucose, urea nitrogen, cholesterol and CO2. No quantitative tests are done on the urine. The amount of insulin necessary to control the patient on this diet is determined solely by repeated examinations of the urine for sugar with Benedict's qualitative solution. Individual specimens of urine are examined daily before breakfast and from one to two hours after meals. On the basis of these tests the insulin, after starting at 5-5-5. is increased or decreased until the urine is sugar free. Blood sugar determinations may be done from time to time to check on the effect of the insulin on the blood sugar, but frequent examinations of the blood are unnecessary. The most reliable guide to the insulin requirements of the patient is the result of the four daily urine

The patient's admission weight is recorded and compared with his theoretical normal as indicated by the usual actuarial tables. The desire is to maintain the patient at or a little below his "normal". If his weight is normal or greater he is discharged as soon as his urine is sugar free, and is told to report for further observation to the clinic, where his diet may be continued or even decreased in calory value if he fails to lose weight. If he is under weight, the diet is increased at once to 200 or 300 grams of carbohydrate, not more than ninety grams of protein and as little fat as possible, usually not more than 100.

This fairly liberal fat allowance is unavoidable because of the nature of the food we eat and the requirements of palatability. All meat and fish, except haddock, contain considerable amounts of both visible and invisible fat. Therefore as the protein content of the diet is increased, the fat content must necessarily increase unless the protein consumed consists exclusively of white of egg and haddock. Also, in order to make the diet more palatable some fat must be allowed for cream and butter.

Just a few words of explanation concerning this single admission diet for adults that has been adopted at St. Luke's Hospital. The figures (C-120 P-65 F-50) are not chosen arbitrarily, but are the result of ten years' experimentation with many and varied diets. The carbohydrate content was adopted because at least 120 grams of carbohydrate was desired and because it corresponded to the carbohydrate content of our fluid diet which is used during acute infections and post-operatively. The similar carbohydrate content of the two diets facilitates the change from one to the other when necessary.

The protein content was selected because it is high enough to satisfy the protein requirements of from two-thirds to one gram per kilogram of body weight for adults, and thus maintain the patient in nitrogen equilibrium. Less protein would be inadequate for the daily metabolic needs of the patient. More protein is unnecessary while regulating the patient and is even undesirable because of its possible ketogenic effect.

The fat content is placed at fifty grams because that is the lowest figure we could arrive at and still prepare a palatable diet. At first the fat was fixed at forty grams, but because of protests from the dieticians as well as the patients, it was increased to fifty grams. This appears to satisfy patients, dieticians, and physicians, and allows an adequate supply of butter for bread and cream for coffee.

This single beginning diet for diabetic patients has proven most satisfactory for the past two years at St. Luke's Hospital. On comparing it with the admission diets of several other New York City hospitals an interesting discovery was made. It was found that four of us working independently in similar institutions had arrived after ten years of experimentation at practically identical admission diets.

There are several advantages to this single beginning diabetic diet. It reduces the duration of the patient's residence in the hospital. With the same diet for every patient, the process of determining the patient's carbohydrate tolerance gets off. to a quick start. It promotes uniformity management of diabetic throughout all services of the hospital. With but one diabetic diet to order, even the surgical intern approaches the diabetic patient with less trepidation. roughly quantitative measurement of the severity of the diabetes. For example, if it requires thirty units of insulin to regulate one patient on this diet and sixty units for another, it can reasonably be assumed that the carbohydrate tolerance of the first patient is twice that of the second. Finally, should it be found necessary, in order to reduce weight, to keep a patient on this diet for any length of time will maintain the patient in nitrogen equilibrium.

960 PARK AVE.

DR. LAURICELLA APPOINTED TO STATE POST

Industrial Commissioner Elmer F. Andrews announces the appointment of Dr. John Bart Lauricella of 10 Park Avenue, New York City, to be Medical Director of the State Insurance Fund. Dr. Lauricella, who won the highest per-

centage rating in a recent Civil Service examination for Medical Examiner in the State Department of Labor, was "appointed after outstanding authorities in medicine and surgery had been consulted and had endorsed his qualifications."

THE GLOVED HAND FOREARM SPLINT IN THE TREATMENT OF COLLES FRACTURE

NATHAN H. RACHLIN, M.D., Brooklyn

Restoration of function without any or with the least amount of impairment in the shortest period of time should be the objectives of treatment of any injury.

The method evolved in this description

fulfills the above specifications.

This type of fracture is usually caused by indirect force applied by a fall on the pronanted hand, with greatest force exerted on the ulnar side of the palm, directed upward, backward, and radially, the effect of which varies with the degree of force applied, age of patient, and condition of the bone structure.

The usual pathology present is an oblique fracture of the radius in the line of the force applied, i.e., upward, backward, and radially at a point of three-quarter to one and one-half inches above the styloid process. Frequently there is also a fracture of the ulnar styloid process or tearing of the ulnar lateral ligament, and occasionally tearing of the interosseous fibrocartilage or one of both radio-ulnar ligaments.

The direct result of the injury is not only the fracture of one or more hones, but also a dislocation of the hand radially because it has lost the buttress of the

radial styloid.

Restoration of function with any degree of satisfaction cannot be accomplished unless the normal relation of the wrist to the forearm is re-established, and that can be attained only by re-establishing the normal relation of the styloid processes to each other, thus reconstructing the saddle into which snugly fits the carpus.

With these points in view, we reduce the deformity, and maintain the reduction, while the immobilizing splint is

applied.

The reduction is best accomplished first by exaggerating the existing deformity and after that by reversing the causative forces thus using traction downward, forward, and towards the ulnar side, and at the same time exerting direct pressure on the distal fragment.

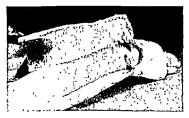
When that is completed, as evidenced by the linear alignment of the radius and the position of the styloid process, it is maintained by the continuous traction in the same line, thus offsetting the contractile forces of muscles of the forearm.

Likewise, the hand now being deviated towards the ulua, direct pull is exerted by the radial lateral ligament, thus preventing the slipping back of the fragment.

The next important step is the maintaining of that position, while the immo-

bilization splint is being applied,

While the assistant is holding firmly the forearm in that position, a properly



padded circular cast is applied, from the base of the metacarpophalangeal joints, with thumb separate to the upper end of the forcarm, with the hand slightly flexed and markedly deviated towards the ulna.

By careful and judicious treatment as described herewith, one may obtain a perfectly movable wrist joint and therefore there is no necessity for choosing any other position than one that will favor the proper union of the fracture.

By introducing, what we call the Gloved Hand Forearm Splint, we have been able to obtain perfect fixation, continuous and uninterrupted observation, both by sight and by palpitation, institute almost immediate physiotherapy, early mobilization without disturbing the relative positions of the fragments, and uninterrupted use of the phalangeal and uninterrupted use of the phalangeal and invariably, after a brief period when pain ceases, the patients use the injured hand for light and necessary duties, such as dressing, eating, and writing.

The making of the splint is simple. When the circular cast is set but not hardened, the cast is cut across dorsally rom a point corresponding to the base of the first metacarpal across to the base of the fifth metacarpal, thence a straight line on each side upward to the elbow.

By removing the cut dorsal leaf, the whole forearm and wrist are exposed dorsally yet the parts remain completely immobilized by retaining the hand within the gloved part and the forearm in the deep trough of the cast. Within a couple of days the forearm is thus exposed, and without disturbing the fragments, carefully inspected and immediate physiotherapy instituted, such as baking later as the process of repair is progressing, massage, and active and passive motion.

After about two weeks, passive motion in the wrist joint is begun by carefully and slowly lowering the anterior leaf of the cast, thus causing dorsiflexion of the hand.

As time goes on, freer use of the hand is permitted when bony union is firm as evidenced by signs and symptoms, and the splint is removed during the day.

At this rate when bony union is solid there is not only a healed bone, but also a perfectly functioning hand and forearm, with no stiffening or muscle atrophy, and the result has been obtained in the shortest possible time.

The bivalved molded, or circular bisected cast, permit too much lateral motion and therefore do not furnish adequate splinting. The metallic, cock-up, or other splints of that type are not perfectly fitted to the individual patient, permit too much wrist motion, and have what we consider the disadvantage of keeping the hand dorsiflexed with the resulting displacement of the distal fragment.

The complete circular cast, while providing perfect immobilization, does not permit any visualization or physiotherapy, or early mobilization and has the added danger, although very remote in hands trained in the application of plaster-of-Paris, of pressure due to swell-

ing or tightly applied cast.

With the use of the Gloved Hand Forearm Splint, it is possible to retain the fracture in the position of choice, to visualize continually the injured limb, to apply physiotherapy and massage, to keep up normal blood supply, to preserve our muscle tone, to prevent any stiffening of tendons, muscles, and joints by active muscle action, and active and passive joint mobilization. The course of the disability is shortened and a better result secured. It is a recognized fact that prolonged immobilization renders the subsequent motion of the adjoining joints and muscles more difficult.

In conclusion may it be added, that with proper understanding of the basic principles, and their application in the treatment of Colles fracture, one should be able to see fewer unsatisfactory results, which while reported as cures, have shorter radial styloid processes, undue prominence of the lower end of the ulna, with radial deviation of hand and wrist, and markedly diminished gripping power of the hand.

901 EASTERN PARKWAY

NOT NEEDED HERE

Successful transfusion of blood taken from the victims of fatal accidents and kept in a refrigerator for more than three weeks is described in *The Journal of the American Medical Association* by the Soviet scientist, Dr. S. S. Yudin, who first developed the procedure. Dr. Yudin, who is chief surgeon of the Sklyfasovsky Institute, the central emergency hospital of Moscow, reports in the article the results of 924 transfusions in his own clinic besides the sending of more than 100 flasks of the blood for use in other hospitals of the Soviet Union.

American hematologists interviewed by New York papers read the report with the same cautious interest with which it was published by the official journal of the American Medical Association. No similar experiment, they stated, had ever been attempted on such a scale outside the Soviet Union, and some of its results, they indicated, may prove, after analysis and verification, to have considerable scientific value. Popular repugnance to the idea of such transfusions, they suggested, and the greater availability of living donors in urban centers of the United States, were likely to prevent the new source of blood for medical purposes from being widely used here.

PHYSICAL AND PHYSIOLOGICAL GROWTH AS A FACTOR IN CHILD ADJUSTMENT

IRA S. WILE, M.D., New York City

The fundamental status of a child obviously depends upon structure and function. Any lack of structure, any acquired defect or injury, must alter the physiological potentials of the child. Thus the cretin, lacking a thyroid gland, has his total physiology altered by reason of the lack of an essential structure, the activity of which is necessary to the normal physiology and psychology of the child. A congenital myopia plays its part in influencing the sensory impressions of a youngster, but it is no less significant in determining a large variety of activities prior to correction by lenses; and even the mode of correction may alter the totality of his physical and physiological activity. A slight injury, requiring the amputation of a thumb, may have far more serious effects as a structure defect, than the removal of a portion of some hollow viscus by a major operation. The entire picture of juvenile activity may be altered by the loss of the thumb, if it limits activity in sports and handicaps the individual for definite and desired forms of manual activity or artistic function.

The entire nature of the child is represented in his total reaction as an organism. He is not as assemblage of parts, of organs, of systems. The structural coordination of his body, as well as its coordinated physiological activity, affects his entire being. His sensory and motor organization subserves the organism as a whole, and in turn is dependent upon the complete organization of the body. It is evident that the well-being and integration of the whole organism must have its effect upon subsidiary and interacting systems and organs. Reason grants that structural or functional defects of the sensory organs, or a lack of development of the osseo-muscular system must determine in large measure, not merely the nature of the child, but the ultimate range of many of his capacities and adaptabilities. It is equally true that such factors as color, height, weight, general appearance, chronic physical handicaps, and even acute disabilities and diseases effect physiologic function, influence emotional states, condition ideas and temperaments, and effect a wide range of social adjustment. The nature of every child is bound up in his physical organization and function, which in turn, must be evaluated in terms of interaction, coordination, and unity. These are fundamentals in the dynamics of child adjustment.

Physical organization, both in terms of structure and function, is a continuum beginning with conception and extending through the course of life. The significance of the moment of conception is frequently ignored, but insofar as the chromosomes then set up the hereditary characteristics which are to be revealed more and more during the process of maturation, one recognizes that a large part of the essence of the nature of a child is beyond modification at the time of birth. This applies particularly to levels of intelligence, which postnatal conditions may readily lower but rarely raise. To establish adjustment patterns as normal, superior, and inferior, in correlation with some mental measure, outrages science. It is unnecessary to discuss the deterministic concepts which revolve about typological systems. If transmitted genes are responsible for constitutional characteristics, the classification of children into athletic, asthenic, pycnic, and dysplastic types implies capacities for adjustment constitutionally predetermined. To discuss gall-bladder types and gastric ulcer types of persons is no more satisfactory than to revert to the ancient status aboplecticus and status phthisicus. admittedly plays a part adaptation and adaptability, but is not static and beyond external influence any more than many hereditary trends or determiners.

Many of the potentials of inheritance are conditioned in their realization by environmental factors which are more readily manipulated and regulated. The multiphased interactions of heredity and environment are such that they are vital, but variable, in their influence upon

structure and function in terms of personal social reactions. The chromosomic premise of height and weight cannot be realized without a socially provided food supply. On the other hand, the existence of one blue eye and one brown eye is beyond the control of any scheme of systemic correction. Growth and function are not wholly constitutional because both may be hampered by external Thus, improper footwear situations. may conduce to fallen arches; an inadequate diet may cause rachitic curvatures; an incorrect writing posture may lead to muscle cramps, or too little oxygen may foster fatigue and inattention. Heredity, then, insofar as it effects structure and function, must be regarded, in part, as predetermining and intangible and, in part, as predirecting but not compelling. The part that heredity and constitutional factors play in any specific adjustment is a problem for investigation rather than for conjecture or assumption.

Regardless of the physical differenobservable during natural periods (prenatal, natal, and postnatal), and despite an accepted set of norms for structure and function based upon various age averages or medians, it is wise to remember that anthropometry cannot be applied loosely to the individual in determining his particular norm of growth and function. Mensuration is artificial at best. To slavishly follow scales and measures for age, height and weight, for example, is to lose sight of individualization of structure and function in terms of hereditary factors, family trends, and environing conditions which facilitate or inhibit physical development. adjustment cannot be prophesized solely on the basis of tests of pulmonary content, strength of grip, the enumeration of physical defects, or the determination of an intelligence quotient.

Infancy, childhood, adolescence and maturity may be set up artificially by physical, legal, or social definition. Biologically, these stages represent mere markers along life's highway of progress. Maturation is a normal growth process, having several vaguely defined periods of acceleration which bring about marked structural modifications. Temporarily disregarding the tremendous functional

development of life's first two years, resulting from growth and expansion of traits established during the period of intrauterine development, no period of years is more significant for physical and physiological development than adolescence, which marks the transforming potency of gonadal activity. The primary and secondary effects of gonadal development, supported by the vital hormonic influences from ductless glands, bring about alterations in child nature arising from, and concerning physical reorganization

The incidence of the physiological potentials of procreation changes child nature and activity profoundly, especially the juvenile outlook upon life and living. This unusual period of development while maturing is, however, merely one of physiologic acceleration with psychological concomitants. The whole child and his total reactivity are modified especially in the emotional sphere. The profound inter-relationship between psychic activity and enhanced physical function is well illustrated by heightened sense of activity and power, by the struggle for independence, and by a growing though uncertain emotionality, influenced markedly by the development of the higher qualities of love and spiritual feeling. The rapid growth of bone and muscle, the oscillation between energy production and fatigue, development of pubescence, seminal fluid, and menses are not as significant in terms of structural re-formation as they are in the foundation of physiologic activations which tremendously affect ego reactions as manifested in social relationships. Self-consciousness. arrogance, aggressiveness, submissiveness, self-pity, anxiety, social timidity, and self-isolation are reflected in the personality reaction of the child to its own physique and physiology. Consciousness of one's own growth is a psychological influence more consequential than the physical fact. To be abnormally tall, short, fat or thin, too pimply or too hairy, etc., in fact to be overconscious of any deviation from a norm of beauty. strength, or accomplishment, adds an extra hazard to adjustment on the basis of structural and functional changes.

This maturation, so pronounced at

adolescence, is merely the expression of an innate capacity to develop in accordance with some principle of protoplasmic This principle is manifest in nutritive and reproductive development and consequent behaviors of the amoeba or campanularian hydroid, of molluses, fishes, reptiles, birds and mammals. All life implies the dynamics of growth, with irritability, responsiveness and adapta-The range and limit of function in terms of individual and group relationships, are inherent in, and determined by the level of structuralization this, in turn, are established the nature and potentials of physiological activity

It is needless to write in terms of The eye of the child specific functions is merely an expansion of the photosensitiveness which is observable among The kinesthetic capacities of school children are not far removed from the tactile sensitivities of obscure microorganisms These are only instruments for adaptation whose value inheres in then adaptability to the needs of the organism in the promotion of adjustments

Protoplasm, although structureless, is a structure possessing all the properties of general and specific adaptation which reveal the structural organization intensely related to levels of function The power of adaptability, representing (if not constituting) the personality of the child, depends in a large measure upon the vital spark operating through the structural dynamo, whose developed energy runs the motor activating func-The physical structure of the child offers potentials which may not be realized, or may be so badly managed as to work even contrary to the social welfare of their possessor necessary to differentiate the meaning and value of the physical and physiological functioning of childhool in terms of personal purpose and social goals Too frequently, even after the maturational process appears to have reached its plateau, the natural growth seems to run counter to environmental pressures The adjustment of the child is then defined in terms of some social judgment rather than in terms of his innate reactions and reactivity. His ideas satisfactory adjustment may differ widely from those of his parents, teachers or the community

It is needless to dwell upon the definite influence of an organ like the heart, of the circulatory function, or the gastrointestinal system Pitently, cardiac structure conditions its function. It is also accepted that emotional inadequacy may hamper cardiac function, and the two separately or together may interfere very severely with the capacity of the child for making social adjustments satisfactory to him-A discussion of the organization and physiological activity of the stomach and intestines together with the vital chemical and hormonic influences of the thyroid gland and the panercas, not to mention the liver and the pituitary gland, would yield ample illustrations of the modifiability of the child's nature and his consequent adaptability One need think only of the problems of height and weight, appetite and digestion, irritability, constipution and diariliea. instabilities, neurotic reactions, deficiencies in attention and concentration, or indeed, of interferences with intellectual growth and development. It would be redundant to specify in detail the particular effects of each structure or the participating contributions of each system, or the interactive effects of the structure of the total body, or indeed the diverse function of the body as a unit in order to make clear the degree to which the child's nature and adjustment are a function of his own total function-He adjusts himself in the light of what he can may, and wills to do he adjusts himself as he does, involves an investigation of his behavior in the light of concomitance and causability, upon these, all rational treatment depends

The nature of a child has two phases, the normative quality which exists in terms of his own evaluations of his structure and function, and the evaluation which society makes in terms of socially approved norms Social contrasts and systematic efforts to bring about conformities exist side by side, while there are no standardized efforts to function in terms of personal interests and enthusiasms The essence of selfevaluation for the individual inheres in his recognition, with or without his acceptance, of the norms of behavior set

up by his particular community as patterns to be accepted and followed. preservation of his individualism may be of significance to himself. The doctrine of individual differences looms larger in the development of pedagogical concepts than in social practice. It is evident that the adjustment of the child may be considered in the light of his personal ideation or in terms of social judgments. What may be thoroughly normal for the individual child may be regarded as abnormal by society. tainly dwarfism or gigantism may be familial and the natural physical norm for a child whom society would regard as This judgment of abnorabnormal. mality might have far greater significance in modifying his general physiology and adjustment than the structure responsible for social comment and the resultant emotional distress. Society has no power to alter such fixed structure. Undeniably, height is significant, but what constitutes unusual height is a matter of location. The stature of a Hottentot and that of a Viking cannot be compared and evaluated in terms of the same scale of measurement.

Normal lefthandedness illustrates the conflict between neuromuscular organization with consequent psychological function and social pressures. The effort to convert normal sinistrals to righthandedness frequently occasions maladjustments varying from restlessness and inattention to incoordination and stuttering, from dyslexia and non-promotion to stealing The sinistral is subjected and truancy. to many slight limitations in a righthanded world, but his adjustments are readily accomplished when his dominant hand is accepted as the normal instrument for meeting his world of causation. He functions most effectively when his total organization is respected and his physiology is accepted.

This article is written in terms of normality of function. There is much to be learned from a recognition of the meaning of what constitutes normality in structure and function. A theoretic norm, for the most part, is an intangible. For practical purposes, each individual's organization must be considered with relation to somewhat vague and artificially established criteria of normal

structure and function. Obviously to be microcephalic is abnormal, but if a child be a well-formed dwarf, although his brain may be no larger than that of a microcephalic idiot, he may still possess complete functional capacity of high order. To have more, or less, than five fingers on a hand is a more definite expression of abnormality, as five-fingeredness is accepted as normal. people with five fingers, however, may lack a bone or have an extra one; they may lack nails or have them actually concave instead of convex. Structurally, there may be many deviations from the established norm even though there may be no real limitation in function. mere possession of what is termed normal structure does not guarantee what is normal functioning. have thought and worked too long in terms of specific structural units. As a result many insufficiencies in the adjustment of children have been blamed upon some structural handicap or some specific structural inadequacy. This often extends into psychological fields when imagination and theory build up pyramidic conclusions upon pointed premises. To fasten maladjustment upon dental decay, flat feet, mental deficiency, or malnutrition is to ignore the concept of multiple causes in social living.

It is highly important to think of child nature and adjustment as a result of liv-Children may function in terms of adaptation in social relationships far more successfully than can be premised on the basis of particular structures. This is well-illustrated, for example, among many children who have spinal curvatures or who show limitations in speech due to dental deformities. dynamics of adjustment lie in vital principles which operate through all structures. To consider the body apart from the mind is an absurdity. To view the mind as merely a mechanism for employing intelligence is ridiculous. To think of the primary emotions such as fear, rage, and love as dependent only on visceral tonus and the sympathetic nervous system is a narrow concept. child is more than the sum total of his parts, viewed either as structures or as functional units. The child is a byproduct of his biological-social friction.

He is shaped from within and from with-His lungs will respond to a lack of oxygen or to a genial gesture His bladder will be responsive to pleasurable excitement at a circus or to a sense of fear at approaching examinations ability to see, to hear, to learn, and to do are as dependent upon his interest and enthusiasm, his ideas and aspirations, as they are upon the structural perfections or the physiological potentials of his eyes and ears. Life premises a capacity for adjustment. Living demands its expression regardless of the social level of activity. When pedagogic necessity calls for specific action it is wise to remember that passivity may be active by allowing adjustment to develop as a result of natural psychobiologic potentials and responses. The finest types of adjustment emerge by reason of internal needs and urges seeking realization in harmonious self-expression frustration is a linzard

The soul of a child characterizes his hving, just as the breath is a quickening principle of his life. His mind is but an attribute of his soul. Memory,

thought, feelings, and volition are behaviors organized within himself strength and power are largely dependent upon corporeal organization physical growth and organic development involve and condition his physiological activities, but his physiology is merely interpretative of his functional His functional capacity, in capacity turn, determines his structural effective ness, and may even impair structural Thus one sees and senses a growth circle of life in which structure and function, organic status and functional dynamics are integrated The child is neither structure nor function, but both Each conditions the other, but both are certain fundamental dependent upon hereditary materials, vitalized and nutrified to permit their development through progressive maturation to such limits as are set by a favorable or unfavorable environment The nature of the child his adjustment and his adjustability, are outgrowths of life and of living, of being and becoming of structure and function

264 West 73 St

Case Report

AN INSTITUTIONAL OUTBREAK OF BACILLARY DYSENTERY PARK-HISS TYPE

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Dysentery epidemics have usually oc curred in camps prisons, and institutions where large numbers of men are congregated Kruse was the first to call the non-Shiga type of dysentery "asylum dysentery" At the New York City Farm Colony, a home for the aged, with a capacity of 1300 immates, an epidemic of dysentery started September 16, 1935, and during the next four weeks, fifty one patients (43 males and 8 females) had been admitted to the infirmary Nine cases were admitted to the infirmary from September 16 to 19, no cases for the next three days, eleven cases from September 23 to 29, eleven cases in the next two days, fourteen cases from October 2 to 7, an absence of cases for the next three days, and five cases from October 2 to 7, an absence of cases from October 2 to 7, an absence of cases from October 2 to 7, an absence of cases from October 2 to 7, an absence of cases from October 2 to 7, an absence of cases from October 2 to 7, and ab

ber 11 to 14 On admission the chief complaints were abdominal pain, diarrhea, and tenesmus An early distinction could be made in most cases as regards mild and fatal cases, the number of bowel movements wis not a distinguishing feature, but toxicity was Those cases admitted in a toxic state, in a state of collapse, gave a bad prognosis

All fecal specimens were sent to a neighboring laboratory for examination for the typhoid paratyphoid dysentery groups and for amebic dysentery. The reports were negative for amebae and bacilli except in one case in which short chained streptococci were numerous (fatal case). Pus and red blood cells were found in most of the specimens. Arrangements were made with the

Bureau of Laboratories of the New York City Board of Health to have fecal specimens of the patients and foodhandlers examined at their laboratories. Six of the patients' specimens were positive for paradysentery bacillus, Park-Hiss type. Three of the foodhandlers also were found to be positive for paradysentery bacillus, Park-Hiss type.

Our cases included forty-three males, of whom eleven died, a mortality rate of 26 per cent; and eight females with one death, a mortality rate of 13 per cent. The mortality rate for our fifty-one cases was 24 per cent. Table I shows the average age, temperature, pulse, and duration of diarrhea in those cases that recovered and in those that died. Mucus and blood were present in almost all the cases. The presence of other symptoms is also shown in the table. An unusual symptom in two of the cases was urinary retention, which was present on admission and lasted for about Sedimentation rates on thirteen a week. cases of dysentery gave the following figures:

Two cases had rates under ten per cent, one a rate of fifteen per cent, five had rates between twenty-one and thirty per cent, two had rates between thirty-one and forty per cent, and three had rates between forty-five and fifty per cent. The average rate in these thirteen cases was twenty-nine per cent. Stained blood smears showed a high polynuclear neutrophile count with marked toxic granules. One autopsy was performed; an inflammatory condition of the mucous membrane of the entire large intestine was present.

Dicussion

Mild and fatal cases could be determined almost without an examination. The fatal cases had a higher temperature and pulse rate than those cases that survived; the average temperature and pulse rate in the former group were 102.7 and 105 F., in the latter group they were 101.3 and 93 F. Blood smears were not of prognostic value since a neutrophilic leukocytosis and toxic granules were invariably present. Blood sedimentation rates could not be used to differentiate the mild and fatal cases since

TABLE I

ı	ALES	(43)	FEMALE	s (8)
I		Dicd	Living	Dicd
	32	11	7	1
Average Age Duration of Diarrhea. Average Temp. (F.)	67	71	66	52
Duration of Diarrhea.	13 da	ays 9 da	ys 15 day	s 11 days
Average Temp. (F.)	101.3	102.7	100.5	103
Average Pulse	93	105	97	110
Vomiting	2	1	3	1
Hiccup	0	2	0	1
Psychoses	8	4	2	1
Retention of Urine	2	0	0	0

there were no appreciable differences in the

The principle means of spread is through a missed case of dysentery. At least twenty males with mild diarrhea never reported to the clinic or infirmary, and they may have been instrumental in spreading the infection. The mode of infection is usually through contact with infected persons or carriers. The contact may be through the use of the same dormitories or through the preparation and handling of food. The fifty-one cases were distributed among nineteen dormitories, from one to four cases per dormitory. Of the 250 infirmary patients, only three contracted the infection.

Our lack of laboratory facilities was a We had to send samples of feces to the Bureau of Laboratories of the New York City Department of Health for The containers had to be examination. transported by truck and did not reach their destination until several hours had elapsed. The low number of positive cultures are due to two factors: (1) the Bureau of Laboratories began to examine our specimens after more than two weeks of the epidemic had passed, (2) the time involved in the transportation of the specimens to the laboratory. The examination of the foodhandlers disclosed three carriers of the Park-Hiss type of paradysentery These carriers were immediately removed from their connection with the dietary division. The milk, food, water, and plumbing were inspected by the Department of Health. Changes were ordered in the sterilization of dishes and cooking utensils, and a well was ordered sealed. No evidence of the food or milk being at fault was found. No new case of diarrhea has been reported since October 14.

Summary

- 1. Fifty-one cases of bacillary dysentery occurred in four weeks with a mortality rate of 24 percent.
- 2. Six fecal specimens were positive for paradysentery bacillus, Park-Hiss type.
- 3. Three food handlers were found to be carriers of paradysentery bacillus, Park-Hiss type.
- 4. The food, milk, and water were not found to be the causative agents.
- 5. As a preventive measure, additional means of sterilization of dishes and utensils were ordered.

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ACUTE "REFLEX" BONE ATROPHY (SUDECK'S DISEASE) Short Summary of Literature and Two Typical Cases

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For the benefit of those whose professional paths have not led them into the minutiae of bone chemistry, may I be permitted to describe bone atrophy and to briefly outline its manifestations.

Bone atrophy is exactly described by its name. It is a loss of calcium from hone and is a lacunar process; that is, the calcium salts are not simply lost but are removed by osteoclasis. To be visible in the x-ray, fifteen per cent of salts must be lost before Roentgen evidence occurs; below this point atrophy is not readily visible. Bone atrophy is purely quantitative. In the varieties to be described herein, there is no chemical change, the relations of water to the calcium salts remaining throughout exactly the same.

In short, all atrophy is based upon the physical principle that calcium is lost faster than it is replaced. In normal bone, constant interchange of old and new calcium takes place and this balance is

nicely kept.

Willich³ divides bone atrophy into: (1) nutritional atrophy, (2) atrophy of disuse, (3) senile atrophy, (4) neuropathic atrophy, and (5) the reflex acute

bone atrophy of Sudeck.

Atrophy of starvation. If less than the physiologic requirement (.45 grams) of calcium is ingested daily, bone loss occurs. This is the atrophy of nutrition of Willich. The deficit from dietary disorders is made up by bone loss, and when this bone loss reaches fifteen per cent, the bones become clearly radiolucent.2 A fascinating example of this is found in rickets. Adequate calcium ingestion with vitamin D deficiency allows a peculiar fuzzy appearance in the regions where calcium demands are great. That starvation, and not disuse, operates here is shown by the fact that starving bones subjected to undue strain will increase their calcium content. This is evidence that the atrophy is due to lack of or failure of utilization rather than usestimulus loss.

Atrophy of disuse: All of us know and

none of us can deny the fact that paralysis or fixation will cause the loss of calcium and an increased radiotransparency of bone. After fractures, a certain loss is nearly always seen. This begins from one to four weeks after the initial fixation and persists until nearly normal activity is attained. Again, it might be well to reiterate that we see neither the early stages nor the late stages since a certain amount must be lost before this disorder is apparent. In short, the stimulus of use must be necessary in a bone to maintain its normal structures and calcium content. This is atrophy of disuse.

Atrophy of old age: Senile atrophy is described by Willich. That this occurs we can not deny, but it is doubtful whether this is truly a disorder. I believe that it is (a) the atrophy of disuse due to advancing years, and/or (b) a nutritional disorder due to deficiency of calcium intake or to utilization. It is a symptom and not a disease and should be so regarded. It is plainly atrophy of disuse and atrophy

of starvation.

Neuropathic or trophic atrophy: Neuropathic atrophy occurs congenitally in Morquito's disease (familial neurotrophic atrophy), teprosy, syringonyelia, and to some extent in tabes dorsalis. In these, there is no disuse, but possible localized nutritional atrophy.

In the last analysis, there are only three factors operative in senile, nutritional, neuropathic, and disuse atrophy. These are (a) loss of calcium utilization, and/or (b) a loss of calcium intake, or (c) a

loss of calcium demand.

Acute reflex bone atrophy of Sudeck: The early inception of acute reflex bone atrophy stands in sharp contrast to the delayed onset of disuse atrophy. It differs strongly from nutritional atrophy by its localization in one extremity. It is not a disease of senility as the average age is about forty. We can not say that it is not a local trophoneurosis, but it is not a part of tabes dorsalis, syringomyelia, motor paralysis, or leprosy. It is much too

rapid and dramatic to be mistaken for Morquito's disease. No authority has made reference to more than one case in a family.

This disease (pending more knowledge of this disorder I have taken the liberty of calling it a disease) is commonly found in the regions occupied by many joints. The most common location is the ankle joint. It is found in the wrist; it can be found in the shoulder; and it is occasionally found in the back. All in all, the disease is more prone to localize itself where many cartilaginous surfaces are present.

Clinical course: Peculiarly enough, acute bone atrophy develops after a very minor injury, such as, a sprain of the ankle or wrist, or a slight strain of the back. It almost never follows a severe

injury.

Often the first symptom is pain in the region of the affected joint.^{3,5,6,7} In the case of hand injuries, the surgeon often removes the splints and examines the extremity to allay the suspicion of con-



Fig. 1. Anterior-posterior view of the hand of Case I taken two months after the primary injury. This exemplifies the transition stage from "Flachliche" atrophy into the stage of universal atrophy. Reproduction of this plate gives a false idea of bone density. In the x-ray plate these bones seem nearly translucent.

striction.7 Then, a glossiness of the skin is noted. The skin may be very hot to touch or it may be very cold; in any event, it is not normal. The slightest motion of the affected joint causes expressions of pain and the patient soon complains of continuous pain in the affected regions. At this time, the glossiness of the skin and the non-pitting edema simulates infection, and several cases have been unsuccessively incised. Next, the surgeon takes an x-ray, and speckled atrophy in the disordered joint region is found. Infection is again suspected for this picture is not unlike the atrophy seen in gonorrheal arthritis. It differs, however, in that the atrophy, earlier, is distal in the affected joint region and only later becomes proximal.

The pain persists and tuberculosis is now suspected.³ The x-rays, taken a month after the onset, show a universal clearing of the bone. Often this becomes so marked that the bones seem almost transparent to ordinary light. The cortex thins to a paper-like thickness. A few authors have found calcium shadows outside the joint and Cohn has pyramided an

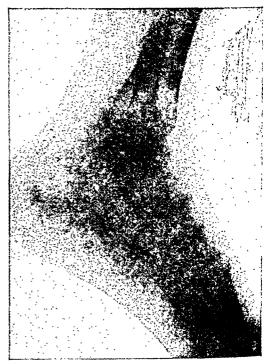


Fig. 2. Lateral view of the posterior foot and os calcis of Case II at the beginning of treatment. Reproduction attributes to this part more density than is seen in the x-ray negative.

elaborate theory thereupon. In my experience I have not seen such.

The suspicion of tuberculosis now causes the surgeon to encase the joint in fixation, but the pain persists.3 The persistence of pain, so uncommon in tuberculosis with adequate fixation, causes a removal of the plaster. The skin is now soft and shiny; it is cyanotic when dependent and is excessively sensitive to extremes of heat and cold. The fat layer is lost, but the joint remains large because of periarticular edema. The extremity sweats without cause. The nails show longitudinal grooves. In the hairy areas, hair becomes coarse. The joint is stiff and the slightest attempt to move it elicits expressions of severe pain. If we examine the blood-vessels for irritability, we find that they react slowly - totally unlike those of Raynaud's disease.

X-ray now shows a very marked bone att-ophy. The joint spaces are narrowed and some authors have found completely obliterated joints with true bony fusion. Retrogression can take place from this stage spontaneously and calcium can again be deposited in the bone.

Pathology: The actual pathology is bone loss and soft tissue swelling. The trabeculae are narrowed and eventually lost. Usually the longitudinal trabeculae remain while the horizontal disappear. In both youth and adult life, the lesion begins with eccentric atrophy; that is, wasting of the lacunae, possibly by cellular osteoclasis. In adult life the bone retains its usual shape. If this occurs before epiphyseal closure, the atrophy will be concentric; that is, bones will be distorted. The extremity may increase its length in youth, but more often, length is lost.

Theories of Acute Reflex Bone Atrophy

1. Several theories are brought forth for this condition. Sudeck, in his original article, felt that infection caused this disorder. From this he was converted by Kienbock who felt that the condition was a trophoneurosis. These writers with Paget, Charcot, Shubert, and others held that stimulation within the reflex arc of an extremity would cause an acute bone atrophy. Turner cited examples of cat bite which produced bone atrophy and explained this by supposing injury to sensory nerves.

2. Hilgenreiner believed that this was

entirely due to disuse plus predisposition in the individual patient. He explained the dystro-atrophy on the basis of ischemia and felt that pain was the direct cause of the atrophy. Hilgenreiner, however, almost negated his own theory in his attempt to explain the lack of atrophy in hysterical joint diseases. He felt that passive motion here prevented atrophy. This we know to be erroneous, since Key and others have shown that passive motion in itself will not prevent atrophy.

prevent atrophy.

3. No author now clings to the infection theory. While it is true that a compound fracture decalcifies much more rapidly than does a simple fracture, such a fact would hardly lay a reasonable base for a theory. In the compound fracture, the almost liquid calcium is lost through the open wound. In a closed fracture, such bone withdrawal could occur through the blood-stream. No one, however, has shown any tissues which can be interpreted as actual inflammation. This theory, in short, is either that the bone is destroyed by inflammation or by

impairment of nutrition.

4. Colin explains this disease by postulating a third method of bone production; that is, not endosteal or periosteal, but by calcium replacement through the lymph channels. According to this, calcium is taken up from the most distal portions of the extremities and carried into the region where repair is occurring. He further states that by the x-ray he can see this calcium in motion. A part of his theory is that these disorders occur most severely in cases where there is little periosteal damage. The pain of this disorder, he feels, is due to presence of calcium in the soft tissue.

5. Pawlow produced bone atrophy in dogs by continuous application of cold to the extremities. Such an experiment would lead to the belief that this disorder is due to a reflex irritation of trophic nerves, which

stimulates metabolism.

6. This condition is very similar in appearance to the normal bone atrophy which takes place after fractures and disturbances of venous extremity circulation. Lerichele has shown that bone atrophy—that is, liberation of calcium—is a necessary forerunner of bone healing. It would seem reasonable that this disease is simply a physiologic process secondary to blood-vessel obstruction which has persisted rather than spontaneously transformed itself into another stage.

Such things happen in the body. Cancer, at the moment, seems to be a persistence of growth far beyond normal limits. Therefore, I believe this disorder to be simply the initial stage of bone repair which has not checked itself at the usual physiologic stage. The increased vascularity of the periarticular tissues could be well-explained by the blocking of deep vessels (which must necessarily occur in bone repair) and reflex relaxation of collateral vessels.² The pain of this condition would well be explained by the irritation of the sympathetic system. If we accept this last theory, we can find a reason for the shiny skin, the edema, the sweating, the grooved finger nails, and the blood-vessel changes. We can also find a reason for the rapid destruction of joint cartilage and joint ankylosis.

Treatment

If the above assumptions be correct, the approach to effective treatment would be through the sympathetic system, and so it is. All authors, excepting Bohler, 11 condemn rigid immobilization. Most authors, Bohler dissenting, recommend measures to increase periarticular circulation. Sudeck, and notably Leriche, recommend sympathectomy.

The first measure must then be directed toward prevention of extraneous stimuli—that is, avoidance of passive motion of the joint, avoidance of exposure to marked heat and cold, avoidance of dependency (which merely engorges an already embarrassed extremity).

Active measures are: contrast bathing; diathermy, particularly with those machines which do not require the use of closely applied electrodes; very gentle massage (either effleurage or the use of a hot air blower); the use of foreign protein intravenously; hyperpyrexia by air conditioning, or other such devices.

Prognosis

The prognosis of this condition is good. The ordinary course with proper treatment varies from six weeks from the primary onset to four months. Untreated, this author has seen cases last from one to two years without signs of recovery. It is not intended to give the impression that this disease does not recover spontaneously. In a review of old x-ray plates, we have seen such cases which we now know to be Sudeck's atrophy. Not remarkably, these cases of simple injury took inordinate time for healing. Perhaps,

they were healed by some of the measures mentioned above which were applied empirically.

Relation of Bone Atrophy to Compensation

An extremely important part of this disorder is its compensation aspect. Some cases, to the author's knowledge, have been diagnosed as malingering, as tuberculosis, as trophoneurosis. Gurd⁵ justly states:

The author [Gurd] is of the opinion that the importance of acute bone atrophy as a cause of temporary disability is not sufficiently well-recognized by the majority of surgeons, in that, innocent persons are accused of malingering, and also that a small number of surgeons prove their unfamiliarity with the condition by recommending too heroic measures; e.g., amputation for its treatment. The opinion expressed under oath by surgeons of experience and authority, in connection with the results of injury leading to litigation, in which the author is interested, prove these facts to be true.

Summary

Acute "Reflex" Bone Atrophy (Sudeck's Disease) is herein described. The clinical course, beginning first with a minor trauma to a region inhabited by many cartilaginous surfaces, is followed early by exquisite pain and a periarticular rubor and non-pitting edema. Punchedout bone atrophy develops early. Later, spotted bone atrophy ("Flachlich") replaces the earlier x-ray findings. The final stage, with widespread loss of trabeculae, is outlined.

The confusion of this disease with gonorrheal arthritis, tuberculosis, and neuropathic bone disease is noted.

Advice is given lest this disorder be regarded as periarticular soft tissue infection. The many theories for this disorder are given, and a new one extolled.

A successful treatment is outlined.

A warning is given lest these cases suffer unjustly in compensation courts.

CASE 1. R. R., male, aged forty-five, was thrown from a horse, striking directly on his right hand, forty days before examination. He made few complaints the first day but within three days was complaining bitterly of severe pain in his right wrist. Motion of the wrist was very painful. He noted

marked swelling of the hand without rubor. His family physician, an excellent and careful surgeon x-rayed the hand and found no fracture. X splint was applied to miniobilize the painful joint and some diathermy was given. Pain persisted and the patient feared the loss of his hand.

There was nothing in the patient's past history relevant to this disorder

On examination August 13, 1935, six x-ray plates, taken at various angles and in various ways, failed to show any fracture or dislocation of the wrist or the bones comprising it. There was a marked swelling about the wrist with a non-pitting edemit Very slight voluntary or passive motions caused severe complaints. Application of ice to the lower arm increased the pain

X-ray at this time showed fairly complete atrophy of the carpal, upper metacarpal bones, and the lower radius Comparison of these with the plates taken within three days after the accident showed rapid progression of bone itrophy. However, in the very early plates it is possible to see some wasting

There was nothing else remarkable in the patient's physical examination. Blood counts were negative as regards this illness. There was slight change in the electrocardiograph suspicious of coronary spism.

This case was given six generalized hyperpyrexia treatments in a hyperthermia cabinet to the temperature of 103° sustained for two hours each. He was also given drily short wave diathermy and gentle massage over the affected wrist for six weeks Early in the treatment, the hand was protected against undue motions by a light splint This was abandoned as the prin on motion abited Contrast bathing in water at 110°, to water at 65°, to water at 110°, was advised and given daily. The patient improved very rapidly, attributing his improvement to hyperpyrexia treatments Tifty days after the first examination motion of his wrist was through nearly the normal range with slight pain in the extremes. The swelling and glossness of the skin was diminished He was allowed to use his hand slightly and only to the point of excitement of prin In the last thirty days before this writing he has continued to improve and is nearly free from symptoms at this time, eighty days after the beginning of active sympathetic system treatment. The course of this disease therefore, has been fully three months from the time of injury and promises very short disability from this time

Case 2 E K, female, aged forty two was seen fourteen months after a slight

"sprain of the right ankle" Three days after her sprain she complained bitterly of pain in her ankle and states that the ankle was swollen without signs of hemorrhage. She was seen in a clinic and was advised to apply dry heat to her ankle, which she did without avail. Treatments of various types were given by various physicians. An x-ray, taken about one month after the accident, showed some bone atrophy. (All these facts are from the putient's story and can not be further corroborated.)

At the time of this x-ray she was placed in plaster and kept so for eight full months X-rays taken about this time were seen by a general practitioner and a drignosis of tuberculosis was made An attempt was made to place her in a tuberculosis sanitarium, but on the patient's objections this was abandoned A rather desultory type of treatment followed for five months, consisting chiefly of alternate encouragement toward use and interspersed interdictions

against using it

Fourteen months after injury x-rays showed very marked bone atrophy of the lower tibia and fibula, astragalus, os calcis, and the middle tarsal bones. After one month treatment by contrast bathing and light massage the patient was admitted to the Ellis Hospital. At this time she was complaining bitterly of pain in her foot and ankle. The ankle was swollen without pitting edema and the slightest attempts to move the joints provoked complaints of severe pain.

She was given physiotherapy (dry heat and massage) for another month Pam persisted and finally she was given intravenous typhoid vaccine (25 000 000 killed typhoid bacill) every five drys for six doses. The results were almost muraculous. Pain diminished and motion increased. The glossness which had been present for the past three months to our knowledge, vanished and was replaced by smooth healthy skin. On discharge to home she continued to improve under contrast butting and light massage. Pain is now absent, motion almost normal and the later varys show a re-deposition of calcium in the atrophic areas.

In short, this patient suffered fourteen months, including eight months in a plaster cast (see Bohler's recommendation for plaster fixation in this disease), had a diagnosis of tuberculosis made, and improved only after stimulation of the sympathetic system by typhoid vaccine intravenously

Less than four months after institution of adequate treatment there has occurred clean cut physical improvement and cessation of puir

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At the time of reading the proofs of this paper, May 5, 1936, investigation showed that Case 1 has regained full motion of his wrist, but has not regained the full strength of his forearm. There is no pain, and swelling, which was absent, occurred only once (early in March when patient strained his wrist on a golf course). This swelling lasted for three days,

and disappeared without treatment.

Examination of Case 2, made the same day, revealed a normal ankle without the skin glossiness and periarticular edema first mentioned. There is a loss of fifty per cent of ankle motion. The foot is painless and the patient walks on it, using crutches. These last are needful only because marked exertion seems to cause foot pain.

Both cases are markedly improved. In extenuation of the lack of complete cure, it might be stated that both cases abandoned systematic treatment shortly after the writing of this paper six months ago.

I am indebted to Dr. Stuart MacMillan, of 613 State Street, Schenectady, and Dr. C. Armstrong Spence, of 188 Market Street, Amsterdam, for the privilege of reviewing these cases.

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BETWEEN MENTAL HEALTH AND MENTAL DISEASE

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Editorial Note: Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

Art and Anxiety

A twenty-seven year old actor complained that he had always had "funny thoughts"; but for the last few months they had become unbearable.

He felt like jumping from the stage "into the audience," or he was rather afraid he

might do so while playing.

He was haunted by a desire or a fear of "walking in on the stage in the wrong time." Or in his own words: "It would be bad if I walked in on the stage in the wrong time" . . . "It would look terrible if I raised the skirt of a fellow-actress facing me on the stage or of a girl among friends in the street" . . 'Suppose I would not speak my line."

How could he play? He still did his part well and had a great satisfaction from the critics' praises in the press. But he was

not sure of himself.

The thought that he might "lose his mind" was ever present before him and he, who used to be sociable and jovial, cared nothing about friends and felt that "soon he would not be able to talk to them."

It was evidently a case of transition between mental health and what is-probably erroneously-called "dementia praecox."

Schizophrenia, the more general term, is more correct, but fails to cover the condition fully.

His conversation is characteristic for this kind of mental disturbance. Here are some of the sentences used by this patient at various occasions in his attempt to make himself understood:

It is peculiar that people walk, eat, come

I have a desire to break a window . . . I my body . . . Today, sitting among my col-leagues, I thought perhaps all of them are ghosts. . . . I started to rehearse, but those thoughts and the fear of insanity came again . At one time I said to myself that my father was a devil . . . I had a dream about the separation of life from the body and I was thinking whether it was true that we were living or not . . . Whenever I see a knife, I fear it . . . I speak like a phonograph record . . . Even this fear is not a part of me, it is something that wants to harm me . . I am separated from the world . I understand people, but they are all new to me . . . I doubt whether I live or exist me . . . I doubt whether I have of stand, but something in me says, words, words.

I cannot read; when I do read I understand, but something in me says, words, words. . . . I carry within me a hidden fear of my own self. . . . Who am I, what am I? . . . I really love life and the theatre and everything about it, but sometimes I get tired of it all . . . When I think I might do something wrong, I get very scared. I know I wouldn't do it the minute I think about it, but the thought of it makes me lose control

of myself. . . . May be all this is not real . Last Sunday I met a pretty woman who told me how moody and restless she was. I saw in her a similarity to myself and that gave me some relief . . . I think everything is strange, even my thinking . . . I am terribly self-conscious. I watch every step of my feet, every movement of my hands, I listen to every word I speak. Then I wonder how strange it is that I listen to myself, that I greet people, that I speak logically, although I am passive and without a bit of interest in whatever they speak to me. . . . When I feel well I grab in as much food as I can because I know I need strength to stand my mental . Thoughts come in which my parents are dead especially my father . . . When I want to do something a thought pops up, What for? When I do as you told me and do not make too much of an effort to get out of this state of mind I feel better. Also when I try to disregard my thoughts.

It is interesting to note that the schizothrenics always speak about themselves, even though it is about themselves in connection with the world or in contradistinc-

There was in this case a conflict between the conscious and the subconscious mind. The conscious mind wishes to play in the theatre, while its rival is opposed to it. Such conflicts are always present and in all of us. But trouble begins when we start to pay attention to them.

Some of these patients, if they don't degenerate or deteriorate, are extremely dependent on any person who can have some influence on them. This actor called me up several times daily asking me how to behave.

For instance:

"I feel like crying, shall I cry?"

"I cannot go out this morning, I see red spots dancing before my eyes. Shall I go?"

And he always obeyed my advice.

Like most schizophrenic patients he had a surprised face, a puzzled look, corresponding to his bewilderment. As he was not far advanced in the disease, the world was just beginning to be buried in cotton, sounds came from afar, outlines were dim and dull. He could not see why, and he wondered. Something was gliding away. He thought it was the world, but it was his own mind. The situation is vaguely painful. This is the incipient state of schizophrenic psychopathy. The patients are correct in their expectations, in their fear of insanity. But they have not fallen into the darkness as vet: they are only in a fog.

We may still be able to help them extricate themselves or bring light and definiteness and contours and tangibility to

In this case a temporary cessation of his work in the theatre was necessary, because there was a possible danger that he might have really done something obnoxious, which could have precipitated a progress into the disease or a disastrous ruin of his

In other cases, as long as some work is still possible, it should not be interrupted.

During our conversations this patient learned to ignore his own gradually thoughts and he was slowly led to selfconfidence.

After three months he resumed his acting, but treatment was not discontinued, as danger was pending for some time. Under great stress or unusual conditions the symptoms might have recurred.

Some people, even physicians, might think that marriage or some sexual association would be beneficial in such cases; very often it is fatal. This young man, as we might have expected, never had success in love. He has had a few sweethearts, but he saw them marry other boys, one after the other, although when feeling better, he was not unwilling or unable to have coitus with a woman in temporary and loose friendship.

As to the ctiology, the condition or tendency may have been congenital, but the real cause in this particular case was unknown. But perhaps a life of want and destitution in his parents' home and a strict father may have contributed chiefly to the outbreak of the symptoms. As a matter of fact, when I saw him he was still poor and still living in his parental house. His stage success was a moral one only, and the little he earned was sunk into the bottomless poverty of his family.

He has been well now for two years and functioning normally and uneventfully, although occasionally he comes for a comforting talk.

611 W. 158 St.

TOO MUCH

A Scot was engaged in an argument with a conductor as to whether the fare was 25 or 30 cents. Finally the disgusted conductor picked up the Scotsman's suitcase and tossed it off the train, just as they passed over a bridge.

"Mon," screamed Sandy, "isn't it enough to try and overcharge me, but now you try to drown my little boy."-Bulletin of Bronx Co. Med. Soc.

STATE JOURNAL. OF MEDICINE

Published Semi-Monthly under the Auspices of the Journal Management Committee Thomas M. Brennan, M.D. William A. Groat, M.D. Peter Irving, M.D. Geo. W. Kosmak, M.D. Samuel J. Kopetzky, M.D.

Executive Office: 33 W. 42nd St., N. Y. Business and Advertising Manager....Thomas R. Gardiner

The Editors endeavor to publish only that which is authentic, but disclaim any responsibility for views expressed by contributors. Address all communications concerning the Journal to the Editorial Office, 33 W. 42nd Street, New York City (Telephone CHickering 4-5570).

EDITORIALS

The President-Elect

It is many years now since Dr. Charles Howard Goodrich of Kings County became active in the affairs of the Medical Society of the State of New York. During these years we have all learned to value his worth and respect his judgments.

His most recent position was that of treasurer of the Medical Society of the State of New York, and his careful supervision over our expenditures and our budgetary requirements, his membership in the Council and on the Executive Committee, have fitted him for the position to which he was recently elected.

As president-elect he will have a year in which to observe further the functions of the various co-ordinating parts of our State medical machinery. We feel that we can congratulate Kings County for having given the Medical Society of the State of New York another fine executive.

Friendship in Fairness

Far from constituting a declaration of war, as some newspapers appear to believe, the resolutions adopted at the Annual Meeting of the State Society should result in closer cooperation between the medical profession and the hospitals. There is no basic antagonism between the rights of physicians and institutional in-

terests. Such differences as exist today are the product of lay administrative policies that exploit the doctor's traditional charity and usurp his professional prerogatives. Fair dealing breeds good feeling. Once the regulation of medical policy is restored to medical boards and the retardative effects of controversy are eliminated, hospital development should proceed at an accelerated pace, in greater harmony with the needs and resources of the community.

The rapid rise of the hospital to a dominant position in medical practice has not brought unalloyed benefits in its train. Administrative and financial considerations have been permitted to overshadow the basic purpose of medical care; and as control of policy has passed from medical boards to lay executives, undesirable industrial practices have crept into institutional life. To justify overbuilding and extravagant equipment, applicants for free service have been accepted without regard for financial eligibility. Large sections of the population have found pauperization easy and profitable; and the taxpayer, the philanthropist-and principally the medical profession—have had to shoulder the bill.

It is unreasonable and unjust to expect physicians to serve in posts and under policies that are destructive to their economic security. The profession has vainly sought to regain the helm of medical affairs by appeal to the fairness and good faith of hospital administrators. It will now employ its organized strength to recapture its rightful position, in the belief that medical participation in the direction of institutional policy will redound to the benefit of the public and the hospitals themselves, no less than of the doctor.

Basic Science Laws

In the past eleven years, ten states have adopted basic science requirements for the practice of healing by any system or method. Such legislation does not supplant medical practice laws. Its purpose is to protect the public against ignorant sectarian practitioners while refuting the charge that physicians claim a monopoly in the prevention and care of disease.

Dr. H. J. Lehnhoff appraises the results of Nebraska's eight-year-old basic science law in a recent issue of the A.M.A. Bulletin. His observations are of particular interest to physicians in states which do not possess similar statutes and are facing some of the problems which confronted Nebraskans prior to 1927.

At that time medical practice in Nebraska suffered from the rapidly growing encroachments of quacks of many persuasions. Not only chiropractic but neuropathy, naturopathy, and a host of other fantastic cults were established in open practice and preparing to seek legislative recognition. Instead of attacking any particular "ism," the Nebraska profession proposed that practitioners of all schools be "subjected to the same basic tests of ability." This proposal was enacted into law.

In the eight years that have since elapsed, two or three osteopaths have been licensed annually, compared to an average of over ten for each of the eight preceding years. No chiropractors have even applied for licensure.

Before actual experience with the Basic Science Law, some physicians questioned the wisdom of legalizing the competition of unorthodox cults under any circum-

stances. Events to date have allayed that fear, "Representatives of * * * peculiar and unrecognized cults are not seeking Nebraska as a field in which to apply their particular methods of healing."

There have been some flaws in the smooth operation of this legislation, many of them arising from problems of reciprocity with states without similar requirements. On the whole, however, the results in Nebraska and elsewhere invite physicians and legislators to consider whether a uniform basic science law might not raise the standards of healing and help to abolish quackery throughout the nation.

Luminal Poisoning

So many of our most useful drugs are attended by an untoward reaction in too many instances. We always attribute this happening to an "idiosyncrasy" on the part of the patient, and, in all probability, this explanation, for want of a better one, is correct. The bromide rash, the iodide eruption, the poisoning from minute doses of morphine, and the total collapse from a minimal dose of epinephrin all fall into this category. For the avoidance of these occurrences we have little to guide us, and it is only the prior experience of the patient which possibly may put us on our guard.

When it concerns the use of certain other drugs, clinical and laboratory investigations have furnished the practitioner with definite contraindications as to their employment. Ether is not to be used in the presence of renal or pulmonary disease. Digitalis will aggravate certain cardiac ailments. Mercurial preparations, when administered to a nephritic, may produce a considerable amount of damage.

The prevalent use of barbituric acid preparations for the control of the nervous system also seems to be not without danger. Eruptions of the skin have become increasingly prevalent from the use of phenobarbital (luminal). These have followed the usual dosage of 1½ grains so that they cannot be explained by ex-

cessive intake of the drug. Scarlett and Macnab, because of the number of cases which have exhibited a toxicity to this drug, have confined the use of this remedy to cases of epilepsy only.

These observers caution against the use of barbituric acid products in senile patients, in debilitated individuals, in arteriosclerotics and those suffering from myocarditis, and in those patients who have an advanced pulmonary lesion. Genitourinary disease, impaired hepatic function, and severe toxemia are also contraindications to the use of barbituric acid derivatives.

Air Conditioning

The problems concerned with air conditioning have been limited almost entirely to the field of ventilating engineering. The increasing use of this means of temperature and humidity control in hospitals and private homes has brought the physician into this field in the capacity of a consultant, since the requirements of the individual necessarily differ from those gathered in a public place where the sole objective is comfort for all.

Investigations have shown that people individually react differently to the types of air supplied by an air conditioning apparatus. An asthmatic patient is most comfortable when the relative humidity is maintained at forty percent. Air supplied at a temperature of sixty-eight degrees Fahrenheit and a humidity of approximately fifty percent will afford relief to a person suffering from a "stuffy nose." A humidity of about sixty percent and a temperature anywhere from eighty to one hundred degrees Fahrenheit represents the ideal supply of air for a premature infant.

Where hospital authorities are considering the installation of an air conditioning apparatus, the medical staff should be consulted along with the engineering

specialist. In this manner, a system will be selected which will afford the maximum of efficiency in that each room or suite of rooms will be able to be controlled individually for the ultimate comfort of the particular patient. Similarly, where a family contemplates the purchase of an air conditioning plant for private use, its physician, who is acquainted with the condition of the upper respiratory tract in each member of the family, will be of invaluable aid in the selection and use of such an apparatus.

CURRENT COMMENT

"BACH AND MOZART would be dead forever were it not for the living artists who are perpetually reviving their melodies. Pasteur and Koch would have lived in vain but for the everyday practitioners through whose activities their teachings are made effective. It is not so much the great theoreticians upon whom the health of the community depends, as the huge army of family doctors who succor the ailing from hour to hour." Dr. Henry E. Sigerist in the preface to his book *The Great Doctors*.

"THE FOLLOWING TABLE, using the United State census classifications and figures compiled from *The Sun's* survey, gives a summary of the findings on employment and unemployment in the nation:

Unem- ployed Jan. 1, 1936	Employed Jan. 1, 1936	Should be Employed 1936	Class
1,734,000	14,886,900	16,620,900	Industry, including clerical workers
1,518,000	2,929,200	4,447,200	Transportation and communications Mining (except oil
312,200	597,800	910,000	which is included in industry)
None	8,428,600	7,948,700	Trade, including clerical workers Public service (most-
None	819,000	918,300	ly State and mu- nicipal)
*191,790 Unknown Unknown	*3,644,010 Unknown Unknown	3,835,800 10,914,000 255,000	Professional, includ- ing clerical workers Agriculture Forestry, fishing
Unknown	Unknown	5,151,000	Domestic and personal service

^{*} An arbitrary figure of 5 per cent is used to estimate unemployment in this field. In addition to the professions it includes many thousands of Government employees."—The foregoing is from The New York Sun, Saturday, May 2.

JACOB WASSERMANN once wrote: "He who suffers with the sufferer, without let-

^{1.} Scarlett, E. P., and Macnab, D. S.: Can. Med. Ass. Jour., 33:635, 1935.

^{1.} Hosmer, M. N.: Cal. and West. Med., 43:405, 1935,

ting his eye be dimined or his hand be paralyzed needs to possess a higher type of strength th in the man of iron whom nothing affrights?

DOCTORS ASKED to Map Future for Med icine" was the heading the New York Herald Tribune of Sunday, April 26 gave to an article of considerable length anent the intionwide survey being made among 'vet erin members' of the profession by the American Foundation Studies in Govern ment The purpose of the survey is 'to determine whether there is a need for an essential change in the organization of med ical service * * * In view of widespread discussion in recent years about the future of American medicine, the foundation * * * is determined to find out in what direction the change should be, and if a change is desirable" Many replies have been received to the foundation's mailed inquiries and of them Miss Esther Everett I and (member in charge of the foundation's governing committee) states "'The replies are full and frank, startlingly individual thoughtful de The writers included undoubted leaders of medical science throughout the country, men so busy with the scientific aspects of medicine and the demands of urgent practice that they have little time for flyers in social science

Organized medicine characteristically and very naturally suspicious of lay efforts in investigation and reform has been fruith and inguarded in this case. Several state medical journals urged physicians to make "considered and studious rephes" * * * What the foundation does believe is that the problem needs to be much more accurately defined than it has been before any of us can know what solutions are in order and whether and where and how the government comes into the picture. * * * The concrete material now on hand * * * in our judgment put the whole discussion on a broader base diverts it from slogans and prejudices.

und loosely defined terms such as "state medicine," gives direction and depth to what is now shallow thinking—the kind of well thinking, for instance that loses sight of the simple fact that the considerable part of the population that is without adequate medical care is also without adequate housing and fuel and clothing and food, and most other thurs."

other things'"

The article continues '*** How should government and medical men cooperate to care for the indigent sick in some less hap hazard manner than now prevails in most places? How shall we define the indigent? Is the cost of their care, of whatever nature a logical charge on local or state tax funds?

* * * Above all, Miss Lape concluded, most physicians recognize the problem as one to be solved by medical men and community organization and they would reject any solution that involved compromise as to the primary consideration of maintaining the highest quality in medical care"

Wishincton's Miss Perkins, acting in accord with its move to check silicosis, has named a committee of fifty three to deal with the problem As stated by the New York Fimes of May 3 'They will tackle the problem of prevention from four different angles

The medical or catching the disease in incipient stages and seeking to fight it to a standstill

Engineering control or working out methods of equipping plants subject to silica dust so as to prevent any outbreak of the disease

Economic, legal and insurance phases, which will take into consideration the cost of the disease to industry because of claims, and the cost of combating it

Regulatory and administrative phases, dealing with regulations that might be put into effect to govern plants liable to an outbreak of the disease"

AIR HYGIENE-A NEW PROJECT

The Air Hygiene Foundation of America has recently been formed by a group of industries to conduct investigations and stimulate research in the field of air hygiene, to gather and disseminate facts relating thereto and to assist other agencies in the same activities. They will also, according to the plans of the founders cooperate in the coordination of similar research efforts. A comprehensive investigation has already been beguin, with the support of the new

foundation, of the hygienic, technologic, and economic aspects of air contamination, especially by dusts in the industries. The head-quarters of the foundation are to be in Pittsburgh and the directors are men of recognized standing in their special fields. In the light of much current discussion of the effect of air pollution on the health of industrial workers, considerable good should come of this new enterprise.

Correspondence

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186 Grove St., Brooklyn, N. Y.

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Sincerely,

ANNA E. RAY ROBINSON, M.D.

April 25, 1936

1408 President St., Brooklyn, N. Y.

To the Editor:

In reading your April 15 issue of the New York State Journal of Medicine, I noticed an error in one of your titles. On page 643, in your article on "Erythroblastic Anaemia," you have called illustra-tion number 4 "Reticulated erythrocytes seven months after splenectomy. (Cresyl Violet) X-120." The correct heading should be the title given figure number 5. The previously quoted title correctly describes figure 5.

The article proved to be of much interest in the light of the thoroughness of the clinical investigation and the use of the

illustrations.

Very truly yours,

HARRY BERMAN, M.D.

April 22, 1936

33 East 61st St., New York City

Re.: Traumatic Subdeltoid Bursitis by J. Echtman, 36, 9:503

To the Editor:

In view of the practical importance of the subject of bursitis of the shoulder may I be allowed to add a few comments to the article cited above?

In addition to the various types of bursitis there is occasionally found a distinct lesion of the subcoracoid bursa. Circumscribed halisteresis of the greater tubercle of the humerus has been mentioned elsewhere as characteristic of ossified supraspinatus tendon. However, this sign is noted too frequently in various disorders of the shoulder

to indicate any certain disease.

In acute bursitis abnormal soft tissue shadows may often be recognized on films taken with special technique. Stereoscopic studies and special tangential views with or without rotation of the humerus will often disclose two separate lesions in the same shoulder. For example, one may find ossified supraspinatus tendon in addition to acute subdeltoid bursitis or chronic subdeltoid bursitis in conjunction with acute subacromial bursitis. Unfortunately, small calcium shadows are easily masked by overlying bone and are frequently missed on routine films.

The question of whether calcific deposits persist or disappear is interesting but insignificant from a practical standpoint, because patients may become or remain entirely asymptomatic in spite of radiographic evi-

dence of disease.

Dr. Echtman rightfully emphasizes the avoidance of heat in acute cases. It is worth remembering that violation of this sound principle will intensify and prolong distress.

About three years ago I learnt of the great benefits derived from deep x-ray therapy of bursitis. The method originated in Sweden and became so popular in some European centers that other measures were given up. The advantages of this method are simplicity of application, quick response and uniformly good results.

Low voltage and medium deep x-ray therapy have proved not to be as satisfactory because of slower response and of occasional instances of recurrences and failures. Unfortunately, there is a certain limitation for this treatment because powerful x-ray equipment and experienced specialists are not

available everywhere.

For practical purposes it does not matter whether the case is of traumatic or rheumatic origin. Also the location is immaterial because all types of diseased bursae have proved to be radiosensitive. In acute cases a single treatment may suffice while in chronic cases three to six treatments may be needed at weekly or semiweekly intervals. The results have been gratifying even in cases with neurotic complications.

It is not intended to discourage competent physical therapy or surgery, but it is important to emphasize the distinct value of deep x-ray therapy in at least the few remaining refractory cases. Theoretically, one may object to this method in view of insufficient knowledge of biologic action of x-rays, but from the patient's point of view there is no doubt as to its superiority. I hope, therefore, that deep x-ray therapy will

be used more frequently, but only when adequate care is available.

Respectfully yours, ERNEST KRAFT, M.D.

Society Activities

Committee on Scientific Work

May 5, 1936

The Committee on Awards, Dr. C. Knight Deyo, Poughkeepsie, Chairman, Dr. Leon H. Cornwall, New York, and Dr. Harvey B. Mathews. Brooklyn, made the following awards on Scientific Exhibits; as announced at the Annual Banquet.

CLASS I-PURE RESEARCH

First Award: Drs. William E. Caldwell, Howard C. Moloy and D. Anthony D'Esopo, Sloane Hospital for Women, New York.

For: Clinical and Roentgenological Recognition of Anatomical Variations in Female Pelves and Their Obstetrical Significance.

Honorable Mention: Drs. Conrad Berens and Brittain F. Payne, Lighthouse Eye Clinic, New York.

For: Development of the Eye in the Human Embryo. CLASS II-New CLINICAL APPLICATIONS

First Award: Drs. William G. Exton and Anton R. Rose, New York.

> For: The differential Diagnosis of Conditions Associated with Sugar Exerction.

Honorable Mention: Drs. William M.
James, and Lawrence Getz,
The Herrick Clinic, Panama, R. P.

For: The Diagnosis and Pathology of Amebiasis.

Certificate of Merit: Drs. Adolph G. De-Sanctis, Edward W. Peterson, Leslie O. Ashton, F. D. McCormick and R. S. Ackerly, New York Post-Graduate Medical School and Hospital, New York.

For: Appendicitis in Children.
WILLIAM A. GROAT, Chairman

NURSES TAUGHT TO COO SWEETLY

Voices have been sadly neglected in the field of education, President James Laurence Meader of Russell Sage says. So a microphone and recording device are being used in that college to improve those of girls in the new nursing course.

When a girl has her voice recorded and then hears it, she seldom recognizes it, according to Dr. Meader.

"You probably wouldn't recognize yours," Dr. Meader said at Albany Medical Colege where he addressed a committee from Albany, Troy and Schenectady on the curriculum of the nursing course at Russell Sage. "By keeping a permanent file of our students' voices," he said, "we hope to improve them steadily, so that at the end of the four years' course, the young woman, who becomes a nurse may bring a soothing voice to the sick room."

Dr. Meader said students will spend the first year and a half at the college, the next two years in Albany Hospital, with the last year and a half back at the college. The course, which was inaugurated last fall by Russell Sage in cooperation with Albany Hospital and Albany Medical College, will turn out "good nurses," he said. The student will have as broad a cultural background as possible and full collegiate standards will be maintained. Even when the girls are pursuing their practical studies in Albany Hospital, their professional program will be paralleled with their cultural program. Each student will be compelled to choose a cultural major and follow it through the entire four years. Thus while she is learning what to do at the bedside of a sick person she will also be using a certain number of hours each week on English, fine arts or social science.

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April 25, 1936

To the Editor Panettered in a wasteful In restactive manner, not only in private NEW Lice, but also in the wards of hospitals. Like all other effective agencies in the treatment of disease, if improperly handled because of lack of care or proper equipment, this therapy may not achieve the beneficial effects which may reasonably be expected from it.

The purpose of oxygen therapy is to overcome oxygen want, due to some interference with proper oxygenation of the blood, as in pneumonia, coronary thrombosis, congestive heart failure, emphysema, atelectasis. In the presence of fever, the metabolism is increased and the oxygen want is thereby increased. If the patient is to be benefited, the amount and concentration of the oxygen employed must be sufficient to compensate for the impairment in the oxygen exchange. It is important that the physician prescribe definitely the concentration of oxygen to be breathed by the patient, just as he prescribes the dose of drugs.

The optimum range of oxygen concentration will vary in different patients. In some cases thirty per cent will be adequate to correct deficiency; in other instances, as high as seventy per cent may be required. Continuous use of pure oxygen is harmful, but for periods not exceeding eight hours of the twenty-four, a concentration as high as ninety per cent has been found safe. In many cases forty-five to fifty per cent is the most desirable concentration.

However, this sign is noted too frequently in various disorders of the shoulder to indicate any certain disease.

In acute bursitis abnormal soft tissue shadows may often be recognized on films taken with special technique. Stereoscopic studies and special tangential views with or without rotation of the humerus will often disclose two separate lesions in the same shoulder. For example, one may find ossified supraspinatus tendon in addition to acute subdeltoid bursitis or chronic subdeltoid bursitis in conjunction with acute subacromial bursitis. Unfortunately, small calcium shadows are easily masked by overlying bone and are frequently missed on routine films.

The question of whether calcific deposits persist or disappear is interesting but insigtent is tested at least two or th. day and the results of the test recorded. The testing is so simple and yet so essential that no physician should ever employ a tent in his private or hospital practice unless provision is made for periodic testing of the oxygen concentration. This test should not be made immediately after filling the tent with oxygen. If the circulation is directly through the ice it takes an hour for the concentration of oxygen to be restored to its former height, unless after opening the icebox, the flow rate of oxygen is increased temporarily. The blower should be stopped when ice is added or inspected.

Oxygen Tent Therapy for Adults

In addition to the provision of a prescribed and tested oxygen concentration, three other important conditions must be met. (1) For adults a tent should have a capacity of at least eight cubic feet. (2) The temperature inside the tent should be maintainable at the desired temperature by means of a cooling device. In most patients with fever a temperature between 58 and 68 degrees Fahrenheit is preferred in winter and slightly higher temperature in summer. Higher temperatures are often desirable for older people and infants. (3) The relative humidity should be maintained between forty and sixty per cent. When tents are ventilated by a motor blower circulation which passes the air over a cooling medium such as ice, the humidity will usually be within this range. If the temperature and humidity are not maintained at these commaining refractory cases. Theoretically, one may object to this method in view of insufficient knowledge of biologic action of x-rays, but from the patient's point of view there is no doubt as to its superiority. I hope, therefore, that deep x-ray therapy will

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oxygen are not required for most illnesses. For short periods, such stimulation may be of value in such conditions as carbon monoxide poisoning, drowning, electrical shock, atelectasis of the newborn, and when there is shallow breathing.

Tents which are not equipped with a satisfactory method for cooling and drying the air may be detrimental to the patient and may cause death by heat stroke. No closed canopy should be put over a patient's head unless it is equipped with a cooling and dehumidifying apparatus. Tents without blowers are usually unsatisfactory in this climate.

Oxygen Tent Therapy for Infants

The same general principles apply to tents for infants, except that higher temperatures, and in some instances, higher humidities should be prescribed for very small infants. Smaller tents may be used. It is dangerous to deprive infants of heat by rapidly circulating cool air over them. A tent with an aperture at the top, and to which the oxygen is admitted at the base, may be used provided it is not placed near an open window or door where air currents may draw out the accumulated oxygen. The oxygen concentration should be tested and recorded. An umbrella or canopy tent without an air conditioner may be used for infants under two months of age since such infants produce insufficient heat, water or CO2 to permit harmful accumulation of these metabolites.

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Nasal Catheter or Nasal Tube Administration

There are several effective methods of administering oxygen through the nose, employing a nasal catheter or nasal tube-inhaler with a calibrated gauge to fit on a high pressure tank. The oxygen must be passed through at least 3 inches of water to prevent drying the mucous membrane.

 A metal nasal tube inhaler with soft rubber tips which just enter each nostril may be employed.

2. A nasal catheter may be inserted into the nostril for a distance of approximately three inches, i.e., up to, but not touching the posterior wall of the nasopharynx. Five liters of oxygen in the inspired air. A single catheter may be changed from one nostril to the other if irritation should occur. With a double nasal catheter a slightly increased oxygen concentration is obtained at the same rate of flow. The terminal one inch of the catheter should be perforated with four holes in order to prevent a stream of oxygen impinging on one localized area of nucous membrane. The size of the catheter may be a No. 12 French or a somewhat larger calibre if it does not occlude the nasal passage completely.

3. The catheter may be employed in the oropharynx opposite the uvula. When it is used in this position caution must be exercised lest oxygen be passed into the stomach. The catheter should not be placed lower than the uvula. The throat should be sprayed every eight to twelve hours to prevent drying.

Whereas four or five liters per minute of oxygen is generally used with the nasal

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Medicolegal

LORENZ J. BROSNAN, Esq. Counsel, Medical Society of the State of New York

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A child received serious injuries when he was struck by an automobile driven by one B., who promptly took the child to the office of D., a practicing physician. The child was examined and the doctor informed the automobile driver that the injuries were serious. and the child needed hospital care. The doctor asked who would be financially responsible for the treatment and was told by B.; "I am responsible, Doctor, I will pay all bills." The child was taken to a hospital and remained under the doctor's care for more than a month. According to the doctor, B. later repeated that he expected to pay and asked the doctor to be as reasonable as possible.

When the doctor sought to collect his bill, he found it necessary to resort to litigation. The defendant, when the case was tried before a jury, denied, however, that he had ever promised to pay for the services rendered to the injured child. The jury accepted the physician's testimony, and there was a verdict in his favor. Upon appeal the verdict and judgment were affirmed, the Appellate Court finding that upon the plaintiff's testimony a case was established against the defendant.

The outcome of that case depended however upon the fact situation, whereby a specific contract to become liable for the services of the doctor was reasonably provable. In the ordinary case where a doctor is called to attend a patient and nothing is said about compensation the legal consequences may be very different. A leading case decided by our Court of Appeals sometime ago is interesting in that respect.**

A woman H. called a physician on the telephone, and told him that her daughter was very ill, and requested him to see her. The daughter was a married woman of full age. The physician told H. that he could not

make the call without the consent of the daughter's husband. Later he had an interview, at his office, with H. and the husband. The husband was introduced to the doctor, and H. again requested the physician to see her daughter. The doctor interpreted the interview as being a consent by the husband that he should attend the sick wife. He thereupon went with H. to the daughter, examined her, and informed her that the patient's condition was very grave and that he would like to withdraw from the case. H, then appealed to the doctor to treat the case, and said: "Doctor, you have been my friend; you have attended my family; you have attended my husband and our children. and I beg of you, for God's sake, don't desert Maude." The doctor had been the family physician of H. but had not attended either the patient or her husband previously. Upon that plea being made the doctor undertook the care of the patient until her death some two months lafer. At no time was there anything said about payment for his services by anyone.

In order to collect his fee the doctor instead of suing the husband brought an action against H., the mother. The result of the litigation was adverse to the doctor although he carried the case to the Court of Appeals. In the opinion that Court stated the legal principles which controlled the case as follows:

The only question upon this appeal is whether the defendant came under any obligation to the plaintiff. That turns upon whether the law will imply a promise on her part to compensate him. If we might assume the existence of a moral obligation, that would not determine that a legal, or enforceable, obligation existed. The rule in the United States has, generally, been that a physician is entitled to recover for his services, if not under an express contract therefor, then, under an implied agreement to pay quantum meruit; differing in earlier times, from the rule at common law, which, in England, before the passage of the Medical Act of 1858, in the absence of a special agreement, denied to the physician the right to sue for his professional services; the theory of any payment to him being that of an honorarium. The general rule, that, where a person requests of another the performance of services, which are per-formed, the law implies a promise by the

^{*} Douglass v. Brandt, 121 Atl. 179. ** McGuire v. Hughes, 207 N. Y. 516.

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treatment in emergency cases, was laid April 15 at City Hall when hospital heads, physicians and city officials conferred. The outcome marks the first time that a definite agreement on the handling of such cases has been made between hospitals and the city.

In emergency illness other than accidents, where physicians order the patient to a hospital, the hospitals will accept the patient at once, under the agreement, and the city will assume the financial responsibility

for the first twenty-four hours.

The twenty-four hour period will permit the hospitals as well as city officials to investigate the case. If the patient is found deserving of municipal aid, the Welfare Department will take over the financial burden. When the investigation indicates that the emergency patient has private means, the matter will become strictly one for hospital adjustment with the patient.

Critical study of the physician from a layman's viewpoint, and the presentation of papers dealing with medical practice comprised the three-point program of the Rensselaer County Medical Society at the monthly meeting April 14 in the Health Center in Troy.

Dwight Marvin, editor of The Record Newspapers, gave the layman's viewpoint.

Discussion followed by Miss Grace E. Allison, superintendent of the Samaritan Hospital, Dr. James H. Flynn, health commissioner, Dr. John J. Rainey, Dr. Miles A. McGrane, Dr. Stephen H. Curtis and Dr. Nicholas F. Brignola.

Dr. Alson J. Hull presented a paper dealing with cooperative practice of medicine between physicians but distinct from clinical work. The discussion was conducted by Dr. Peter L. Harvie, Dr. Mussey and Dr. Curtis.

The final paper, concerning the hard of hearing problem among school children, was read by Dr. A. J. Hambrook.

Rockland County

The North Rockland Medical Society, which comprises all physicians of Stony Point and Haverstraw, has established an agreement for basic fees, effective May 1. The new fees conform with the basic fees charged by physicians elsewhere in Rockland County and accord with the schedule of the Rockland County Medical Society. The members have agreed that the base fee for an office visit will be \$2 and for a house call \$3. For calls after ten P. M., there will be an additional charge of \$1 and mileage of 50 cents a mile for calls beyond three miles.

St. Lawrence County

Dr. Marion B. Sulzberger of New York will address the St. Lawrence County Medical Society on May 21 on "Relationship of Dermatology to General Medicine."

Saratoga County

DR. ARTHUR J. LEONARD of Saratoga Springs will continue to guide the destinies of the Democratic party in Saratoga County as the result of his reappointment as chairman of the executive committee of the county committee by William H. Hickey of Mechanicville, Democratic county chairman.

Schenectady County

THREE MEN INTERNATIONALLY famous in the medical world were in Schenectady on April 15 to visit the Schenectady bronchoscopic clinic at the city hospital and to address the April meeting of the Eastern New York Eye, Ear, Nose and Throat Association. The men, all members of the Temple University faculty, were Dr. Chevalier Jackson, pioneer in bronchoscopic work and inventor of many ingenious instruments used in the treatment of bronchial ailments; his son, Dr. Chevalier L. Jackson, consultant of the Schenectady clinic, and Dr. Edward Chamberlain, professor of x-ray at Temple University.

Steuben County

A WOMAN'S AUXILIARY of the Steuben County Medical Society is being formed, with Mrs. Chauncey M. Lapp, of Corning, as temporary president for organization purposes.

Warren County

Dr. Edwards Albert Park of Baltimore, discussed "Scurvy" at a meeting of the Glens Falls Academy of Medicine April 16. Preceding the meeting, Dr. Park was guest of honor at a dinner given by members of the Academy.

Westchester County

DR. GEORGE P. SHIRMER, eighty-four, of Mount Vernon, celebrated his golden wedding anniversary on April 7, was struck by an automobile April 8, and died on April 9. Dr. Shirmer was graduated from Bellevue Medical College, now the Medical Department of New York University in February, 1873, and was, he believed, the oldest practicing alumnus of that college by eight years. During the Civil War he listened to a speech made by President Abraham Lincoln, and later attended General Grant's inauguration as President.

Medicolegal

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former to pay their reasonable value, has no application in the case of a physician, rendering professional services to a third person, if the relation to the patient of the person, who requests them, be not such as imports the legal obligation to provide them.

The Court also said:

In the present case, notwithstanding the anxiety, the importunity, and the prayers of the defendant, how was the legal obligation of the husband shifted to, or assumed by, the defendant? According to the plaintiff's testimony, he refused to attend the patient until the husband had consented; which may be said to be a recognition, at least, of the marital relation, with its consequent responsibility, or liability. It, certainly, followed that, when the husband's consent was given, an obligation arose on his part to pay the reasonable value of the services which the plaintiff might render. As there was no express promise by the defendant to pay, can we hold, upon the facts disclosed by the plaintiff's evidence, that there was, also, an implied promise on her part? It would be a simple matter, in cases where the physician is called upon to attend a person, at the instance of some one not standing in a responsible relation to the patient, to inform himself as to whom he shall look for his compensation.

Another related fact situation is the one which arises where a doctor renders treatment in an emergency, and seeks compensation. A case of that sort also decided in this State some years ago states the legal principles involved.*

During the course of the trial of a lawsuit in the Supreme Court which involved a corporation, the president of this corporation, one B., who was present in the courtroom suddenly fell from his chair unconscious. At the particular moment S., a physician who specialized in eye, ear, nose, and throat work was on the witness stand as a witness against the corporation. Various persons in the room shouted for a doctor, and S. obtaining permission from the Court went over to where B, was and announced that he was a physician. One of the men associated with B. in the case that was being tried remonstrated and ex-claimed: "The hell you are; you are an oculist; what we want at a time like this is physicians, no oculists."

However, S. with the aid of another physician in the Courtroom at the time,

also a witness against the corporation, proceeded to render what they considered proper treatment to B. They loosened his clothes, examined his heart, lungs and pulse, and attempted artificial respiration. Although these attempts were continued from thirty to forty-five minutes, the stricken man did not regain consciousness, and was pronounced dead.

Later S. sent a bill for services, and the executors of B.'s estate refused to pay it, and he brought suit to recover his fee. In holding that the doctor was entitled to recover from the estate the reasonable value of his services the Court said:

In my opinion this case falls within the rule that one who becomes ill, and through unconsciousness or otherwise becomes incapable of acting or deciding for himself, is liable on the theory of an implied contract or promise that, having received the benefit of necessary medical aid and attendance, he must pay for them, no matter by whom the physician was summoned to perform them; and from the necessity of the case, any one is authorized to call a physician to treat him, without liability on the part of the person so calling the physician.

The plaintiff could have proceeded to treat the deceased, if no one had called him, or called for aid, and recover for his services. Mr. F. (who had objected) was a stranger to the deceased in the sense that he was under no legal obligation to supply medical attendance, and where a man is in extremis, it is the duty of a physician to treat that man regardless of the interference of strangers; and the language or opinion of Mr. F., after he and counsel called for aid, that the plaintiff's services were not welcome or desirable, or that the plaintiff had not the ability to treat the deceased because he was a specialist in eye diseases, or an oculist, putting it at the strongest interpretation of the language hastily used by Mr. F. at the time, did not justify the plaintiff in neglecting to render aid or defeat his right to a recovery therefor, or warrant him in assuming that the sick man, through the agency of Mr. F., did not desire the services.

Mr. B. was in a comatose state when the call for a physician was made in the courtroom and remained, during plaintiff's treatment, unconscious until his death, and this established the professional relation of physician and patient. * * *

The facts here show that immediate attention was necessary, as death occurred before the ambulance surgeon arrived and within a very short time after the plaintiff commenced his treatment, and it was proper and necessary that the doctor should attempt immediately to restore the patient to consciousness and prolong life.

Doctors in New York City and vicinity are warned that a sneak thief is visiting doctors' offices and making off with valuable

property. It is advised that office attendants be instructed to keep an eye on unknown callers.

^{*} Schoenberg v. Rose, 145 N. Y. Supp. 831.

Across the Desk

A Few Impressions of the Annual Meeting

"Why, he talks just like an Ameri-CAN." remarked one of the listeners after Lord Horder finished his address on "The Clinician's Function in Medicine" at the Tuesday afternoon session of the state convention. Perhaps the listener expected that the distinguished "physician in ordinary" to King Edward would talk like a stage Englishman in vaudeville, or like even some of the more cultured and literary English who visit our shores and speak with a sort of rising and falling sing-song and an "aw-awaw" that the peanut literati try in vain to imitate.

As a matter of fact the best English actors, visiting America, who make diction a life-study, and the best English speakers, as we hear them on the radio, talk much like the most cultured people here, and when a speaker has a marked "English accent" or "American accent," it merely shows that his diction is out of line with the best usage. The exchange of distinguished visitors between America and England, and the international radio programs, should help to unify and standardize the spoken language at a high cultural level on both sides of the Atlantic.

Another thing that must have struck Lord Horder's listeners was the incisive mental ability evident in the very glance of the eye, the expression of the face, the shrewd poise of the head, as he uttered his wise epigrams. When he spoke of the multiplicity of modern medical apparatus and observed that "the human brain is the best machine of all," one could not help feeling that a fine specimen of this machinery was facing us. And again, when he remarked that "there is a technic of the mind as well as of the eye and of the hand," and "quite as essential," and "it is not only what you find at the bedside, it is also what you bring to the bedside . . . the mind that sees," everyone felt that the man before us was a superb illustration of his own point.

Mind vs. Machinery in Medicine

It might be said, indeed, that Lord Horder's main theme was a plea for the medical mind as against medical machinery. He would not destroy a single piece of our new scientific apparatus, but would put it in its proper place. "Today we are witnessing the apotheosis of the machine in human life," he declared, "and it is not surprising to find that medicine is being mechanized." The danger comes when the machine predominates, "Where the machine is greater than the man, the patient perishes." Along the same line is the trend toward the multiplication of specialists and toward the diagnostic clinic and group medicine, All excellent, perhaps, but they tend to crowd the general clinician out of the picture, which is a great mistake. In the hands of the specialist and the group clinic, the patients too often "are handled as bundles of organs and functions and not as human beings." The general clinician is needed to see the patient as a whole.

In a few graceful and happy words Lord Horder turned to President Sondern and complimented him upon his efforts "to prevent the divorce of pathology from clinical medicine." Conspicuous among the clinicians who have "kept their heads," he remarked, "the future history of medicine, if written with a due sense of the importance of this epoch, will record your own name."

Lord Horder's address will appear in an early issue of the STATE JOURNAL, and will be well worth reading entire.

Automobile "Partners in Death"

How the medical profession can help to cut automobile accidents was told by Dr. Byron Stookey, Chairman of the Section on Neurology and Psychiatry. Up to this time the chief task of the doctor has been to patch up the injured. But wouldn't it be better to prevent the crash, before the injuries occur? Dr. Stookey, in an able analysis of the causes of motor wrecks, finds, among other things, that the human element has not improved to keep pace with the greater speed and power of today's cars. "The automobile and the driver are partners-partners in safety and partners in death. A moving machine must

have a properly functioning nervous system at the controls. "Sometimes a motor "is too powerful for the rear end," it is said, and Dr. Stookey asks pointedly: "May it not at times be too powerful for the head end?"

Yet no attention is paid in driving examinations to this vital fact. "Today a highly lethal weapon is placed in the hands of anyone who can read and execute a few simple maneuvers." Defects of the central nervous system receive no recognition. A locomotive engineer, guarded and guided every mile, must pass exhaustive tests required by law, and a searching examination probes each nook and cranny of the airplane pilot's system before he leaves the ground, but the automobile driver is let loose on the highway to hurl a ton of steel hither and you at a mile a minute without any test of his nervous reactions. Some nervous drivers go panicky and turn right instead of left, or push the accelerator instead of the brake. Others have defective vision, not detected in the simple tests at the licensing bureau, but fatal in a crisis.

What can the doctors do about this, it may be asked—is it not a matter for the lawmakers? Well, in the first place, it is a subject that the medical societies may well recommend to the legislature for action. Every applicant for a driving license should be examined by a qualified medical man for physical or nervous defects, the fee to be paid by the applicant. If that is too large an order, then every driver involved in an accident should be required to have such an examination.

It is possible, in fact, that something of the sort can be begun now, without waiting for any new legislation, which always takes a long time. Only a few weeks ago a boy with a long accident record was brought into court in New York City, the judge had him examined by a psychiatrist, he was found to be a moron, and his driving license was taken away from him. There is a precedent. When a judge is in doubt, he may very properly have a driver tested by a physician for physical or nervous defects that would endanger the public on the highway, and on the doctor's report he can revoke the driving license.

Dr. Stookey suggests that a medical board be appointed by the State to study the question of examining the driver's nervous system before granting a license. He would also have certain diseases reportable in the application for a license, such as dizzy spells, epilepsies, and other convulsive seizures, the license to be refused in such cases.

In short, here it a program which would bring the doctor strongly into the automoble accident picture—before the crash, instead of after it.

"Safe Manufacturers" Wanted

It is rather sardonically amusing to see the daily newspapers print prominently Dr. Stookey's strictures on the unsafe drivers and omit his criticisms of the manufacturers who build cars that grow more and more unsafe every year. The unlucky drivers do not advertise. Visibility is impaired in the new cars by the V-shaped windshields and the angle at which they are set. The mirror makes a blind spot directly ahead. Side vision is impaired by wide uprights, and rear vision by small rear windows, while low seats and high hoods add to the problem. Often neither the fenders nor the side of the road can be seen by the driver. The car's weight has been shifted forward, so that the rear wheels skid easier, while the engines are powered in excess of braking, road-holding, and steering capacity. One manufacturer is cited who made a stronger, swifter model -and its accident rate trebled that of its predecessor. "The driver is licensed," remarks Dr. Stookey, "why not the manufactured product? The campaign for safe drivers should be supplemented by a campaign for safe manufacturers."

We see clear evidence here, by the way, of the value of a profession that is independent of outside controls, untrammeled by hidden influences, free to speak out, for instance, on the sins of motor manufacturers. Heaven grant that the profession be able to keep forever this splendid and enviable freedom.

Pathways Beflowered with Smiles

It was a clever arrangement that made everyone pass all the displays of the technical exhibitors on the way to and from the ballroom where the meetings were held. In every booth was some man or woman of magnetic personality radiating an aura of welcome, so that the pathway was be-

flowered with smiles and warm handclasps. No official committee of welcome was necessary. Many of the men in the booths were the detail men who call upon the physicians of New York City and State regularly, so that they were old acquaintances. The medical and surgical manufacturers always have something new or some improvement on the old, so that the doctor who desires to be up to date finds it profitable to give attention and due consideration to what they have to offer. It was interesting to see the groups of medical men gathered at various exhibits, looking into the latest things produced to aid them in their work. If the doctor is the man in the forward trenches fighting the unending battle with disease and death, then the manufacturers are the munition makers who supply the powder and shot.

The celebrated "minute man" of '76 snatched his long musket from the antlers over the fireplace, seized his powder horn and his pouch of home-made bullets, cast from melted pewter plates and candlesticks, and was ready for anything from Bunker Hill to Yorktown. But he would be nowhere in the mechanized and highly scientific warfare of today. Precisely parallel has been the advance in the battle with disease. The two sciences of destroying life and saving life have been refined to the uth degree, and the marvelous progress in scientific medicine was apparent to anyone who took the time to stroll through the scientific and technical exhibits. The medical arms and ammunition of 1936 would merely bewilder the doctor of our grandfathers' day, and the array that lined the approach to the meetings at the Waldorf had a world of meaning to the reflective mind.

Many of the scientific exhibits presented by surgical and medical specialists were being closely studied by physicians who undoubtedly took away with them information and hints that will be invaluable in their practice. Some of these scientific exhibits were of a strikingly pictorial character, with brief printed explanations, that could be reproduced clearly in three or four pages of a medical magazine, and it may be logically questioned why such an exhibit. the result of years of experience and often of consummate skill, may not be equally as useful to the doctor as a paper read at a section meeting. The earnest attention that was being given to some exhibits was eloquent of their value, and suggests that it might be worth while to carry the best ones on the printed page to medical confreres not fortunate enough to attend the annual meeting.

The Medical Movie has Arrived

The little movie theatre was always crowded, a fact that argues for larger and better accommodations at the next convention. The medical movie is growing more and more popular among the profession, and the reports of the meetings of county societies around the state are increasingly sprinkled with the phrase that one or more of the papers were "illustrated with motion pictures." The crowds around the technical exhibit of moving-picture apparatus, too, were so great that it was often hard to pass. The alert program committees of the county societies are evidently awake to the drawing power of the flickering films, and perhaps we have the answer here to the eternal problem of how to get the members out. A few weeks ago the Brooklyn papers reported that a thief had stolen two reels of medical films from a doctor's car parked in front of a patient's home. There is a tribute. They are stealing them. The medical movie has arrived.

The films, the scientific exhibits, the papers read at the section meetings, give point to the remark of a western medical journal that "the physician who would gain stature in his profession should practice writing and speaking upon medical subjects in which he is interested." The value of his work will come before his colleagues. editors of medical journals, and the profession at large. He will at the same time perform a service to his confreres, to the public, and to himself. Doctors have a responsibility as teachers, and in this field, duty and privilege are happily combined. No one could help feeling at the convention that the papers, the exhibits, the delegates themselves, were the results of rigorous selection, the survival of the fittest. Even the most commercial product along the aisles' of the show-rooms had to pass an inexorable ethical scrutiny. Where a hundred were admitted, hundreds more would have jumped at the opportunity, but could not qualify.

At the same time the broadmindedness of the committee appeared in granting space for the exhibit of the League for Socialized Medicine, a cause strongly opposed by the State Society.

As Voltaire said:

I WHOLLY DISAFPROVE OF WHAT YOU SAY AND WILL DEFEND TO THE DEATH YOUR RIGHT TO SAY IT

The representative at the booth reported that the League has 2,000 members, of whom 1,000 are physicians in New York State. It would be interesting to check up how many of the 1,000 are members of their county societies.

Science and Religion in a Mixup

THOSE WHO THINK that science and religion won't mix are mistaken. The printer can mix them. In our March 1 issue, on page 362, the statement was made that outstanding scientists are investigating "antisceptic" solutions. When they find one, that will be news, and they will not need to stand out any longer. Just as we were feel-

ing all cut up about this slip, we happened to see a headline in a Long Island paper saying in large, black type: "Medical Society to Give Sermon to Cut Pneumonia Deaths." That must be the kind of sermon that makes 'em sit up. We are now "all agog," or something like that, for later reports.

Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

The Diagnosis and Treatment of Diseases of the Peripheral Arteries. By Saul S. Samuels, M. D. Octavo of 260 pages, illustrated. New York, Oxford University Press. 1936. Cloth, \$3.50.

Dental Infection and Systemic Disease. By Russell L. Haden, M. D. Second edition. Octavo of 163 pages, illustrated. Philadelphia, Lea & Febiger. 1936. Cloth, \$2.50.

A Guide to Psychiatric Nursing, By F. A. Carmichael, M. D. & John Chapman, M. D. Second edition. Octavo of 175 pages, illustrated. Philadelphia, Lea & Febiger. 1936. \$2.25.

Synopsis of Clinical Laboratory Methods. By W. E. Bray, M. D. Duodecimo of 324 pages, illustrated. St. Louis, The C. V. Mosby Company. 1936. Cloth, \$3.75.

Examination of the Patient and Sympto-

matic Diagnosis. By John Watts Murray, M.

D. Second edition. Octavo of 1219 pages, illustrated. St. Louis, The C. V. Mosby Company. 1936. Cloth, \$10.00.

Abortion. Spontaneous and Induced, Medical and Social Aspects. By Frederick J. Taussig, M. D. Quarto of 536 pages, illustrated. St. Louis, The C. V. Mosby Company. 1036. 1936. Cloth, \$7.50.

Medical Mycology. Fungous Diseases of Men and Other Mammals. By Carroll William Dodge, Ph.D. Quarto of 900 pages, illustrated. St. Louis, The C. V. Mosby Company. 1935. Cloth, \$10.00.

REVIEWS

Aphasia a Clinical and Psychological Study. By Theodore Weisenburg, M.D. and Katharine E. McBride, Ph.D. Octavo of 634 pages, illustrated. New York, The Commonwealth Fund. 1935. Cloth, \$5.00. Octavo

Aphasia and cognate disorders have long attracted some of the oustanding neuropsychiatric work, especially in Europe. The field has by no means been exhausted, however, as this American work amply demonstrates. Dr. Weisenburg's last work will be a monument, both to his name and to American medicine, since this is doubtless the outstanding American contribution to this branch of neurology and neuro-psychiatry.

The exhaustive case studies as well as the

complete analysis of the literature and the formulation of more up-to-date technical and psychological methods, make this book an invaluable base of operations for any future studies in related branches of neuropsychiatry. The authors display an admirable sanity and objectiveness about their conclusions, which will be permanently helpful in a field where many great names have served as banners for theories. The book is an indispensable addition, not only to libraries, but to the shelves of all neuropsychiatrists. Its physical makeup is exemplary and contains an extensive bibliography and an index, SAM PARKER

A Textbook of Clinical Neurology with an Introduction to the History of Neurology. By Israel S. Wechsler, M.D. Third edition. Octavo of 826 pages, illustrated. Philadelphia, W. B. Saunders Company, 1935. Cloth, 67,00

This, the third edition, continues to maintain the lofty established position of its predecessors. In its physical makeup and arrangement—826 pages, including the index—its character is essentially that of Vol. II. Part I deals with Method of Examination; Part II, The Spinal Cord; Part III, Peripheral Nerves; Part IV, The Brain; Part V, The Neuroses. The use of a bolder type for descriptive paragraph headings is welcomed as a favorable change.

As an innovation, at the extreme end of the volume, and not as yet dignified as a part in the Index, we find a brief introduction to the history of Neurology. This new and attractive departure is presented in an interesting and stimulating fashion. We suggest that in future editions of the volume it be dignified by a separate part and head the parade rather than form the modest tail of the book. Now that the ice has been broken what is to prevent the author from pursuing his own apt suggestion of preparing a more elaborate history of Neurology. Certainly, the specialty, no longer crawling but progressing with rapid strides, deserves such an expression of its place in medicine.

The Textbook should continue its large appeal to third and fourth year medical students.

HAROLD R. MERWARTH

A Treatise on Medical Jurisprudence. By Benton S. Oppenheimer, LL.B. Duodecimo of 290 pages. Baltimore, William Wood & Company. 1935. Cloth, \$400.

The subjects of law and medicine have each received wide and extensive treatment at the hands of most competent students and authorities. But there are few brave lawyers, doctors, writers, professors and students who have had the knowledge and sufficient courage to plunge into the cold pool of medico-legal jurisprudence.

The author spends no time with conjectures and speculations. He delves into the subject backed by authority and defuly unveils the wide panorama revealing briefly and concisely the history of the medical profession. The time dates back to the expert apothecaries, concocting their herbial remedies, and the "barbitonsores," some so sufficiently skilled in the use of sharp instruments, to be called the chief surgeons of that time.

As the time clapsed, there grew up such a confusion of laws as to the rights, duties and responsibilities arising out of the relationship between doctor and patient, couched in such incomprehensible, technical legal terminology as to necessitate clarification and explanation; hence the new science of medico-legal jurisprudence.

Covering as it does the authorities throughout the United States and England, with footnotes and citations, this book becomes equally indispensable to both doctor and lawyer. It is concise, yet complete, lucid, exhaustive, covering all the ramifications of the medical profession.

The simplicity of its treatment makes the subject understandable even to the ordinary layman, and should make delightful and instructive reading.

S. INGRAM HYRKIN

Practical Clinical Psychiatry for Students and Practitioners. By Edward A. Strecker, M.D. and Franklin G. Ebaugh, M.D. Fourth edition. Octavo of 705 pages, illustrated. Philadelphia, P. Blakiston's Son & Co. 1935. Cloth, \$5.00.

One sometimes wonders why there are so many different text-books on any branch of medical practice. There may be little obvious excuse for some, while in others the authors have evolved certain methods of teaching and presenting cases, and these methods are incorporated in their books.

In Psychiatry there are many text-books and, without serious thought, one is apt to say "What is the use of having more than one, they are all good," but after reading several it becomes obvious that each may have some special advantages in the way the subject is presented. While Psychiatry is a specialty, books on the subject, broad in scope and considering the patient from many angles are of necessity. In this book the authors present mental diseases in a comprehensive manner, drawing attention to the various reaction types, attempting to understand the significance of the prepsychotic personalities and the psychological mechanisms underlying the psychoses. Illustrative cases are presented and studied and the best methods of treatment suggested. A careful reader of this book can scarcely escape the feeling that in better understanding the patient and his environment, he will be better able to deal with the ailment, which after all is only influenced by careful attention to and treatment of the patient, Much of the information has evidently come from personal experience but other sources are utilized and valuable data brought together for presentation. It is evident that these authors are keeping their book abreast of the times and are making definite contributions to the study of Psychiatry. It can be highly recommended to both students and practitioners.

Clinical Diagnosis by Laboratory Methods. A Working Manual of Clinical Pathology. By James C. Todd, M.D. and Arthur H. Sanford, M.D. Eighth edition. Octavo of 792 pages, illustrated. Philadelphia, W. B. Saunders Company. 1935. Cloth, \$6.00.

A comparison of the new the Edition of

A comparison of the new 8th Edition of this book with its first edition indicates the huge strides that are being made in Clinical Diagnosis by Laboratory Methods. Dr. Sanford has nobly carried on the work that Todd began. Many new additions and changes have contributed to maintain the excellent standards that the original author set. Much of the work has been rewritten and many new and clear illustrations adorn the text.

The popularity which this book has attained in the past must certainly be widened by the excellence of this last edition.

It is heartily recommended to all labor-

atory workers and physicians.

MAX LEDERER

Midwifery. Edited by Sir Comyns Berkeley, J. S. Fairbairn & Clifford White. Fifth edition. Octavo of 740 pages, illustrated. Baltimore, William Wood & Company. 1935.

Cloth, \$6.00.

The 5th edition of this standard work is, as heretofore, written by ten English teachers, though not separately. All share

the common responsibility of the opinions expressed; opinions which are in many re-

spects distinctly English.

As stated in the preface, this book is, "frankly written for students." However, general practitioners who do not wish to read lengthy treatises, will find this book thoroughly up-to-date, well arranged and readable.

This edition shows complete revision, particularly as to the newer concepts of the ovarian cycle, toxemias of pregnancy, pyelitis, etc. We, in this country, however, might take exception to some of the views

expressed by our English cousins.

The indications for cesarean section in placenta previa have been greatly extended in this country. These authors believe, however, that section has only a limited field in such conditions. They have discarded the old classification of complete, incomplete, marginal and lateral types, and substituted merely the terms "complete and incomplete." This is, undoubtedly, an advantageous classification for students.

Douching of the uterus in incomplete abortion or after curettage is being advised. This method is hardly favored in this

country.

The authors recommend immediate operation as soon as puerperal salpingitis is diagnosed. Is that not too radical?

For giving intravenous medication they advise exposing, by incision, the cubital

vein. Several illustrations show how it should be done. They add casually, that puncture of the vein through the skin "may be substituted." In this country, exposure of the vein is done only, when puncture is absolutely impossible.

We are also not accustomed to examine and deliver our patients in the English (side) position, as illustrated in the book. Particularly does this method seem cumbersome and inconvenient, when applying forceps. It seems to us that the American position (dorsal lithotomy), is of greater advantage in all respects, to patient, obstetrician, anesthetist, nurses and assistants.

Except for our differences of opinion, the book is well written, excellently arranged, and well illustrated. It should prove useful to those who need a concise and authoritative treatise on obstetrics. J. HALPERIN

Diseases of the Nose and Thoat for Practitioners and Students. By Charles J. Imperatori, M.D. and Herman J. Burman, M.D. Octavo of 723 pages, illustrated. Philadelphia, J. B. Lippincott Company. 1935. Cloth, \$7.00.

This is a text-book which features system and simplicity in an attempt to give the student and practitioner a ready guide to diseases of the nose and throat. In this the authors have succeeded admirably. thirty years of teaching by Dr. Imperatori are well reflected in the scope and plan of the contents of this work. The chapters on Plastic Surgery, x-ray Technique and Interpretation, and Radiotherapy are invaluable and not to be found in other text books. The unusually large number of illustrations, the table of arrangements at the beginning of the chapters, and the methods of presentation of each subject should satisfy the most discerning rhinolaryngologist.

MERVIN C. MYERSON

Human Pathology. A Textbook by Howard T. Karsner, M.D. Fourth edition, revised. Octavo of 1013 pages, illustrated. Philadelphia, J. B. Lippincott Company. 1935.

The attitude of the author that the reader has satisfied the prerequisites of the subject has resulted in his extremely practical and standard textbook. Without slighting necessary data, "graveyard" topics frequently usual in standard texts, have been elided to provide a clear and modern discussion of each factual subject and in sufficient elaboration. This revision has admitted much recent material, particularly notable in the chapters on tumors, hematopoiesis, the endocrine, and the nervous systems. Particularly useful is the progressively important arrangement of modern references, which are preponderantly modern.

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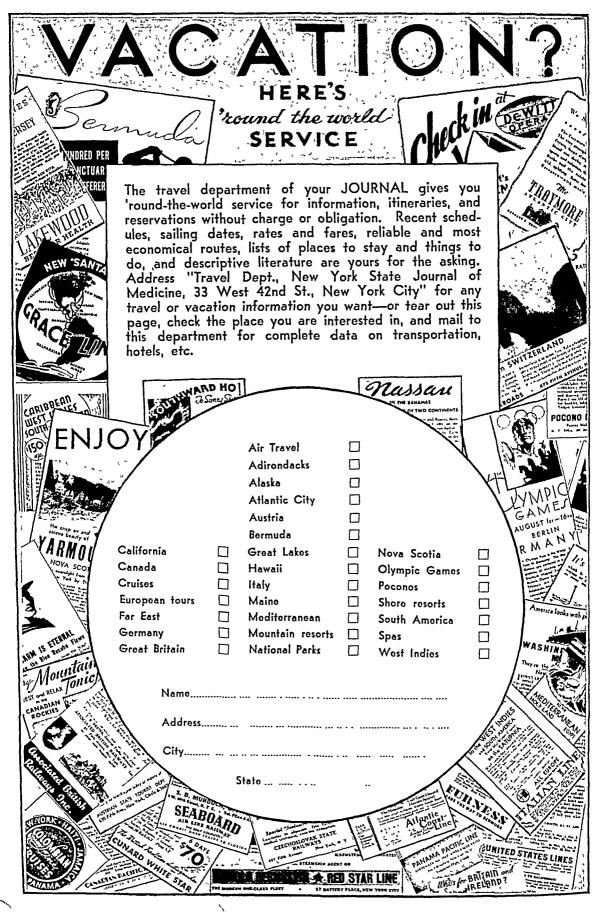
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are equipped with today.

The travel section of your JOURNAL is intended to aid you as well as to furnish you with information helpful when it becomes necessary to prescribe travel for some patient. In addition, a Travel Department is maintained to assist you without charge or obligation—if you are the least bit uncertain about the kind of a trip you want to make, the hotel you would like to stop at, or the place most apt to have the recreation you like, then this department can make suggestions which may not only prove beneficial to assure a pleasant vacation, but result in getting more for your money too.

On the facing page is furnished a blank to facilitate your inquiries, and which by the way portrays the faith that has been shown in your JOURNAL by truly distinctive travel advertisers. It was impossible to display every advertiser that uses the travel section, and unfortunately many fine hotels had to be omitted.

The growth of the travel section has been astounding and its scope of influence is surprising. Besides being the only department of its kind in medical journalism, and naturally the largest, it has several other distinctions of being first to its credit.

Among the accomplishments of the Travel Department of your JOURNAL is the booking of the first "pay passenger" on the first trip of the Zeppelin "Hindenburg" to the United States.

That many physicians have been using these travel pages to advantage is evidenced by the increasing number of doctors stopping at hotels advertised here, far more than space permits mentioning in our Travel Brevities.



A Trip of Exploration into the Adventurous Past

With but a very little stretch of imagination the traveller steps back into the ages when adventure and romance supplied more dangers than our modern high-speed life, when he steps from the gangplank of a Grace Line steamer at almost any one of its ports of call.

Sailing from New York (every other Saturday) the Grace Liner takes you south past the Virginia Capes and on into the Caribbean to

Peurto Colombia, northeastern outlet for the products of the rich and beautiful Republic of Colombia. This haven, seeming to doze in the sun and the trade winds, lies at the landward end of one of the longest piers in the Americas. Down that pier you roll by motor onto a magnificent highway for an hour or so to the immaculate and modern little city of Barranquilla. Here you get your first glimpse of one side of the enchanting medal which is South America-modernity in its ultimate forms yet somehow modified by the atmosphere of antiquity. All this coast served as the beat for notable sea rogues, privateers, and pirates 200 years ago. The present site of the splendid Hotel Prado is the trysting place of "ghosts" of that ruffianly group of gentry who slew and skinned wild cattle for a livelihood in the seventeen hundreds, and from this-"boucan" as the French termed it, became buccaneers.

Back to your liner you clear away for Cartagena, just the reverse of Barranquilla. For Cartagena is in essence Colonial Spain and modern South America touches it only slightly. Its hotels are modern, its streets reminiscent of the 20th Century but the strangely vital quality with which the air in Cartagena is charged, is oddly enough a quality which must have been more familiar in the 16th and 17th Centuries than to ours.

Walled by bastions many yards in thickness, guarded by cannon which, though failing to repel Sir Francis Drake, did hold off Vernon, another and later British admiral. Cartagena is responsible for the name of our national shrine. Por Vernon brought with him to this assault Lawrence Washington, elder brother of George, who was to call his country estate in Virginia. Mount Vernon, after his chief. Cartagena is the last true stronghold of history on the Caribbean. You will not forget it. The few hours you spend there are hours which will

(Continued on nert page)

stick in your mind like photographs in an album.

Then on to Cristobal in the Panama Canal Zone, through the mighty cut in the single backbone of two continents which is the Canal to Balboa, the Pacific entrance, and from where according to your choice, you sail down the west coast of South America or north to Costa Rica, El Salvador, Guatemala, Mexico, and California. Always finding new, but old, attractions—glimpses of the long, long ago, as if you were travelling on a time machine of some fantastic story.

Spa Celebrates 500th Anniversary

The spa of Badgastein in Austria, possessor of the most celebrated radio-active thermal springs in the world will celebrate its five hundredth anniversary this season. It was in the summer of 1436 that a toiling caravan worked its tortuous way up the steep trails of the Gastein Valley bearing Frederick, Duke of Styria and his retinue to Badgastein. Duke Frederick was ill unto death from a gangrenous wound of the leg. All other prescriptions having failed, Duke Frederick was coming to the Gasteiner springs of which he had heard many rumors.

The Duke had not much hope of being cured, but he bathed in the mysterious waters nevertheless and a few weeks thereafter rode back down the Gastein Valley and off into the great world to fulfill his destiny as Holy Roman Emperor. His visit to the Gasteiner Spa found its way into the chronicles of the time and the ceaseless caravan of the ailing began to pour its way down the valley toward the newly found "spring of eternal youth." In 1492 the family Straubinger opened its famous hostel; the family Straubinger stills owns that hostel which is now a great palace-like hotel. The waters of Gastein remain today as mysterious as they were yesterday. Science recognizes that they are highly radio-active, but it recognizes also that they contain a mineral element or a rare gas that defies analysis and isolation. Century after century the visitors have never failed. Accommodations, diversions have changed with the tempo of varying times, but Badgastein's cure remains the most amazing in the world. The bathing cure is efficacious in many of the degenerative and nervous disorders but its rejuvenating properties have brought it the most sensational kind of fame. The spa will celebrate with a round of festive occasions.

Going to Europe this Year?

As a friendly tip, the Red Star and Arnold Bernstein Lines (the One Class Fleet) are suggesting early reservation for those planning to visit the Olympics in Germany this summer.

Forecasts of the regular tourist bookings intimate a heavy increase in addition to the many thousands of sport enthusiasts who will naturally storm trans-Atlantic steamship offices between now and August 1st.

Besides the economy of transportation provided by these lines, the appeal of having access to every part of the ship makes the Red Star and Arnold Bernstein Lines steamers even more popular and desirable.

Full privileges and unrestricted use of the entire vessel belongs to the tourist for everyone sails "top class." There is no discrimination. No one may exclusively enjoy a better part of the ship.

The Seas and Shores of England

O, it's a snug little island!
A right little, tight little island!
All the globe round, none can be found
As happy as this little island.

-from an old English song.

Edmund Vale believes that each of the five British seas—he names them lovingly, the Irish Sea, St. George's Channel, the Severn Sea, the English Channel and the North Sea—has a personality of its own, "more subtle and influential than we are generally aware of," and the aim of his book "Seas and Shores of England" is to assist "the sightseer who has a keen eye, a quick ear, and a sea sense" to an appreciation of each distinctive fascination.

The coast he divides under three heads—the offing, the shore, and the entrance. The offing is "that part of the sea which lies immediately off the land—say as far as the horizon line"; by shore he means "the region of that invisible line mentioned on maps and charts as H.W.O.T.—High-Water-mark Ordinary Tides—and is made to include the cliff verge as well as the beach of sand, gravel and shingle, and the mudflat"; an entrance signifies "any point in a coastline where human contacts can be made between the sea and the land."

The cliff scenery, Mr. Vale asserts, is probably the most varied in the world, "as the Isles of Britain seem to have been singled out by geology as a concentration-point of representative exhibits from nearly every period in the world's known rock history."

The book is commended enthusiastically by Quiller-Couch "as a coast-dweller and descendant of coast-dwellers." It has all the particular merits of a Batsford Book, including numerous and excellent photographs.

(Continued on page xxxiv)

The whole SHIP is yours





taken in mid-ocean

When you step aboard one of the fine ships of the Arnold Bernstein or Red Star Lines, you know that every privilege is yours to enjoy. You know that every member of the command and crew is devoted to your service, safety and pleasure. Harmoniously appointed recreation rooms and private accommodations ...deck space galore...perfect service ... and a cuisine to suit your sea-going appetite . . . at a price to fit your travel budget. Next trip be modern ... sail the popular "ONE

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S. S. PENNLAND

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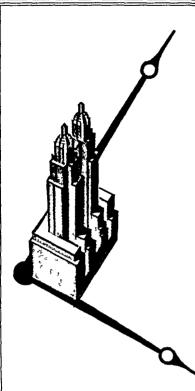
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The Waldorf-Astoria is the recognized headquarters of the medical profession. When you stop there, you are convenient to hospitals, clinics and medical centres. Waldorf rooms are famous for their private-home charm. And Waldorf service is instantly responsive, secretarial in its thoroughness, yet unobtrusive.

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SOUTH AMERICA

39-Day all-expense cruises to Vulparaiso, Chile, and return—10,500 miles! 17 Caribbean and South American Cities!—Or to the interior of Peru, Cuzco, Lake Titicaca, from \$600. 32-Day all-expense cruises to Lima, Peru, from \$350. Consult your travel agent or GRACE Line, New York; Chicago; San Francisco; Los Angeles.

Patronize your N. Y. STATE J. M. advertisers to enhance its value





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New * SPORTS FACILITIES. And new Solariums for Men and Women. "Drink in the Sun."

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stage favorite of millions, will direct Grossinger entertainment. Dave holds big run records at the Roxy and Capitol where he headlined for over a year.

 Unanimous opinion of DARNEY ROSS and other celebratics, stern of stage, sereen and radio who have travelled the world over and rate Grostinger's as the Top Vacation Spot. ADE LYMAN says: "This is the only vacation place for me. I can't wait to come the only vacation place for me. I can't wait to come

1936 GOLF CHAMPIONSHIP

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More Inviting Cruises

Announcement has just been made by the Holland-America Line of scheduled Summer and Fall Cruises to Kingston, Curacao, La Guayra, San Juan, Hayana, and Nassau.

These cruises are as follows:

First Cruise: Aug. 22nd, S.S. Rotterdam, visiting Kingston, Curacao, La Guayra and San Juan—13 days duration—Minimum rate \$1.45.

Same duration—Minimum rate \$145.

Third Cruise: Sept. 26th, visiting Bermuda, Kingston, Havana and Nassau—13 days duration—Minimum rate \$145.

Fourth Cruise: Oct. 10th, visiting Bermuda, Kingston, Havana and Nassau—13 days duration—Minimum rate \$135.

Fifth Cruise: Oct. 24th, visiting Bermuda, Kingston, Havana and Nassau—13 days duration—Minimum rate \$135.

Descriptive circulars may be had from your local travel agent or by writing to the Travel Department of your State Journal.

Getting There-Today!

Long ago various ingenious writers elaborated stories in which the chief character devised a mysterious but successful way of getting from the



earth to the moon. At that time men supposed the moon inhabited by a race of strange beings well worth an informal visit. So the hero set off blithely in a kind of flying boat, or simply sat down carefully on a well-chosen light ray and in no time at all found himself safely on the moon. In our own day no author has been cleverer than Mr. H. G. Wells in composing tales wherein someone or other reaches the moon or Mars or some other terminus in the sky. It is all very fantastic and exciting, but in actuality and like the moon it leaves us cold. Have we not terrestrial places we can visit in complete comfort and swift journeys? The moon is a barren planet and doubtless the famous "canals" of Mars have no gondolas and swan boats.

Indeed we are inclined to pity the ancients for their slow methods of transportation. They had to rely on camels and elephants and horses and tiny sailing ships and even their own two feet. Often a country gentleman took three weeks to go from his estate to his city house.

In those days Columbus did not cross the Atlantic for his summer vacation; and no college student could spend four days in Europe during the Yale or Harvard two weeks' Christmas vacation. Nowadays we can reach England and the Continent in less than five days by the "Bremen" and "Europa" of the North German Lloyd. The "Graf Zeppelin" will take us there in three days. Once we are in Europe we can dash about in such renowned express trains as the Royal Scot in England, the Blue Train in France, or the Rheingold Express from Holland through Germany to Switzerland. The world's fastest train, The Flying Hamburger, averages over 70 miles an hour in the jaunt from Hamburg to Berlin. So we need little time to take our trips. In fact we save so much time on the way that we have more time to enjoy our selected vacation land. We are the fortunate people of destiny.

None the less we should admire rather than pity the ancients for their courage in braving strange oceans and their perseverance under hard odds in going places and seeing things The Chinese merchant who traveled over wastes and deserts to Egypt, the Mongolian soldier who rode by pony from the Yellow Sea to the Black Sea, the hardy Vikings who fought through storm and ice from Norway to our own coast over arctic seas, these were real men. Yet we must remember that not all of these early ones traveled for conquest or business. Many went forth just from sheer curiosity. As many more journeyed for pleasure or seeking new health. To them the odds did not appear fearful. The distances did not appear formidable. They were used to those methods of conveyance. The camel and the horse were beasts of incredible speed, the fastest things going. Born into our own world a Roman would jitter at the chance of traveling in the "Bremen" or the Flying Hamburger.

Now of all early peoples the Romans did the most traveling. Once the Empire was firmly established they went anywhere and everywhere. They were extremely broadminded and allowed conquered peoples to retain their own customs and religion. They appreciated what they found and patronized what they appreciated. Perhaps the most interesting of their travels were their journeys over the Alps to drink and bathe in the miraculous, wonderworking springs they had discovered in Germany. For the Romans suffered, if for different reasons, from various kinds of ailments and they learned that neither pills nor medical compounds cured them half as quickly as Nature's own medicine. For as today you travel through the Rhine country you will find

(Continued on next page)

The Best Hotel and apartment —VALUES—

"Physicosocially" and "Psychosocially"



FOR THE DOCTOR WHO VISITS NEW YORK-

Here are HOTEL SUITES that are real apartments—complete homes, with disappearing twin beds, serving pentry, electric refrigeration. Rates same for 1 or 2 persons.

From \$4 Daily
Special rates per week, month, season

FOR THE DOCTOR WHO

Here are 1-2-3 room apartments, furnished or unfurnished with or without full hotel service—penthouses, semi-duplexes, studios, by the year at from \$55 monthly.

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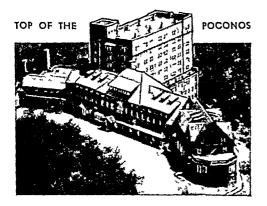
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Modern country hotel, with its own 3000-acre estate, golf course and private lake high in the Pocono Mountains. Only three hours from New York and Philadelphia. Riding-tennis-archery —children's playground. Full entertainment program, including movies and dancing. Open the year 'round. Rates from \$31.50, with meals. Write for booklet, information. Herman V. Yeager, General Manager.

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TRAVEL AID

Consult Your Journal Travel Department when planning a vacation—a competent travel man will arrange itineraries, reservations, etc.

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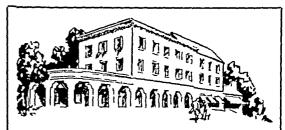
OVERLOOKING VICTORIA PARK

BERMUDA HAMILTON,

old Roman streets and memorials both in the little villages and also in the German places we now call spas and watering places. The Germans call them "Baden": that is to say, baths. But baths in a very special sense. For centuries they have been famous for their curative springs and mineral waters. Today they are famous not only for their cures but likewise for their lovely natural settings, social and artistic life, and all kinds of sports.

One naturally thinks of a sanitorium as a rather dreary place where one goes for a specific cure. The doctors are specialists, the nurses are kindly and efficient, but with all due allowances the experience is not one to be hoped for with any degree of enthusiasm. It is bad enough to need a cure. It is perhaps worse to go to a place that most of us classify with hospitals. For these places we have the greatest respect, but to go there comes rather in the nature of a painful necessity.

(Continued on page xxxviii)



UP TO THE DOCTORS' STANDARD

Things that a physician recommends regularly . . . fresh fruits, berries and vegetables from the Langton's and vegetables from the Langton's own gardens . . . abundant fresh cream and milk from its own dairy . . . a restful atmosphere of comfort and geniality, large airy rooms, facilities for all types of outdoor exercise and recreation . . . the ideal spot where even the rates are attractive. And truly up to the doctors' standard for living.

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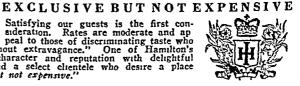
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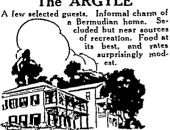
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Satisfying our guests is the first con-HAMILTON sideration. Rates are moderate and appeal to those of discriminating taste who desire "comfort without extravagance." One of Hamilton's finest—a hotel of character and reputation with delightful home atmosphere and a select clientele who desire a place that is "exclusive but not expensive."



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Nothing formal—just primarily for rest and freedom from conventional rules, yet equal to satisfying the crave for "social whirl" when desired. Fresh foods, delightful rooms. Special rates for families, 'and long stays.

The ROYAL PRINCE



Thoroughly modern appointments. Excellent rooms, service, and cuisine, at most moderate rates. Located in the heart of the social and commercial center of the islands, and "next door to everything," yet on a quiet street in the capital city, Hamilton.

THE BUENA VISTA



Private beach bathing and within easy reach of many attractions. Light, airy rooms, and excellent food. Intensely quiet location, conducive to rest and relaxation. Rates moderate. American or European plan.

The GLADYN

Everything essential to comfort, rest, and well-being is provided for a limited number of discriminating guests. A cuisine that assures well-balanced and tasty meals.

The SUMMERSIDE

"WHERE SPRING IS ETERNAL"

Golf—Bathing—Fishing—Boating— Tennis—Horseback Riding and less strenuous diversions. Home cooking to suit guests, and rates as pleasing.

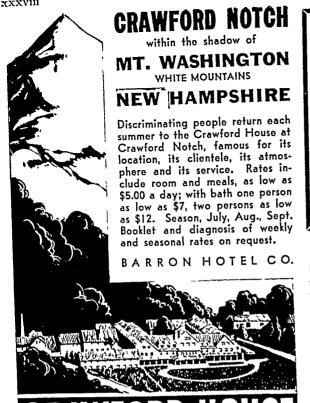


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Atlantic City's Finest Boardwalk Hotel

Catering especially to physicians and the needs of their patients.

3

Sea Water Swimming Pool
Turkish Baths Marine Sun Deck

European Plan

Beautifully Furnished Housekeeping Apartments

Bar, Grill and Cocktail Lounge

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Write for Descriptive Booklet and Rates

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Best in accommodations that provide a monopoly on luxury. Best for convenience that places you 12 minutes ride from Johns Hopkins Hospital, near medical and pharmaccutical centers.

BEST

Single Room with Bath \$3.00 up Double Room with Bath \$4.50 up

The Swerson HOTEL

BALTIMORE,MD. O.G.CLEMENTS,MGR.

Now before a word is said about the beneficent work done by the German baths, even more words should be said about the life one leads while one undergoes the cure; and also we must remember that thousands and thousands of men and women in perfect health attend these places merely for pleasure. For about these curative and active springs have grown some of the loveliest resorts in Germany, from the shores of the Baltic Sea to the pleasant valleys of the Black Forest.

Travel Brevities

Arrivals for a week-end at the Ritz-Carlton, Atlantic City, included Dr. Frederic E. Sondern, past president of the Medical Society of the State of New York, and Right Honorable Lord Horder, president of the Medical Society of London and physician in ordinary to King Edward VIII.

Mr. Fred Tivoli, who was for many years with L'Hermitage, Le Touquet, France, and for four years with the Castle Harbour Hotel, Bermuda, has become associated with Mr. Harold Frith in the management of the Elbow Beach Hotel to complete a program of improvements

ENJOY NEW YORK -INEXPENSIVELY!

Fine Room With Bath: \$2.50 to \$4.00 Single—\$3 to \$5 Double

A La Carte Service of Merit
ALL EXPENSE RATE—3 Days—2 Nights
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Doctors can safely recommend The Balsams at Daxville North, N. H., as a spot where hay fever sufferers are guaranteed absolute immunity.

Beautiful hotel with fireproof accommodations for 500, 4600 acre estate. Every land and water spott, 18 hole championship golf course. The water is of exceptional purity (analysis on request), Food products from certified farms.

Rates from \$6 daily including meals. Special September rates. For booklets, information or reservations address.

vations address

THE BALSAMS

DIXVILLE NOTCH, N. H.
In the White Mountains
FRANK DOUDERA, Pres.

This should place the and embellishments. Elbow Beach Hotel in its logical position, not only as the only hotel on the Beach, but one of the finest hotels in Bermuda. Rates for the summer season will remain the same as in the past.

Dr. and Mrs. Peter Amazon, winners of the Physicians' Wives League trip to Bermuda contest, sailed for Bermuda on May 2nd to spend a few days at the Elbow Beach Hotel.

GUESTS of the Hotel Bermudiana recently included Dr. A. M. Goldman, Dr. Evans F. Scaland, and Dr. Rudolph Goldberg of New York, Dr. M. T. Field of Massachusetts, and Dr. Leonard Sidlow of Michigan.

THE HOTEL ST. GEORGE in Bermuda had the following registered as guests: Dr. L. I. Powers, Michigan; Dr. H. S. Shaw, Canada; Dr. Mary A. Burke, Massachusetts; Dr. P. R. Hoyt, New Hampshire; and Dr. Robert E. Frick and Dr. Karin Horney from New York.

Announcement has been made of the appointment of Frederick C. Heller, American representative for Bermuda Hotels Incorporated, to represent in the United States and Canada, the De Luxe Hotels-Ritz, London. Carlton, London; Ritz, Paris; and Grand Hotel National, Lucerne. Mr. Heller is an old friend of the JOURNAL and we are glad to see his ability receive greater recognition.

Sander beneral einen min het heiner verdomannen ein die dem angen der het hit om affinistet. HOTEL.

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Pacific Avenue at Park Place ATLANTIC CITY, N. J.

Refined family hotel (Gentile Patronage) in the heart of the most exclusive hotel district; near amusements and Boardwalk; rooms with and without private bath; many with ocean view; American Plan; Appealing rates.

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VQL. 36-NO. 11

JUNE 1, 1936

PAGES 843 TO 898

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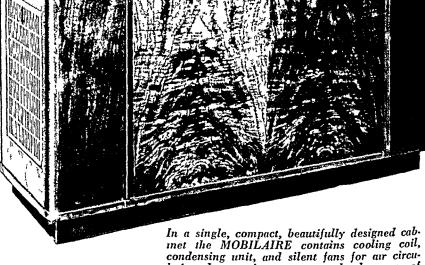
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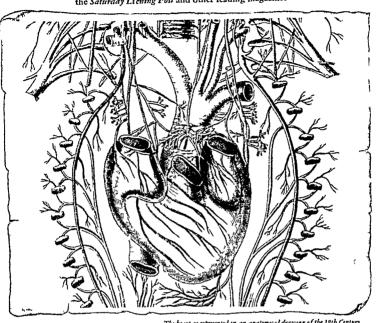
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Telephone Columbus 5-8300 One of a series of advertisements prepared and published by PARKE, DAVIS & CO in behalf of the medical profession. This 'See Your Doctor' campaign is running in the Saturday Evening Post and other leading magazines



The heart as represented in an anatomical drawing of the 18th Century

That heart of yours ...

EIGHING only 8 to 12 ounces, that heart of yours must each day do an amount of work equivalent to lifting a man of 150 pounds one and a quarter times the height of the Empire State Building

It can never rest On and on it must beat 72 times each minute. 4320 times each hour, 37,843 200 times each year

Its Herculean 10b 15 made still more difficult by the strain and accelerated pace of modern life This, perhaps is one of the rea sons heart disease is increasing Today, it leads all other causes of death-one person in six above the age of 40 dies of heart disease

That is an alarming figure It makes the thoughtful person wonder, What about my heart?

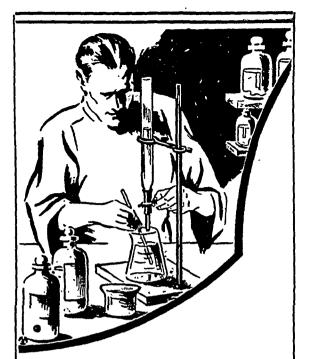
And the only person who can answer that question for you is your doctor

The answer most people get is one that takes a load off their minds - There is a anything wrong But if something should be wrong, your greatest security lies in knowing about it prompt ly For the heart has remarkable properties of recuperation It re sponds to treatment if started in time, better than most organs in the body Even people with badly crippled hearts often live happy, active lives after they have been taught what precautions they should observe

Today physicians know more about the ills of the heart and ways of the heart than ever be fore They are better equipped than ever before to treat and con trol heart disease-and to guard against it as well

Shortness of breath-fluttering of the heart-numbness of the extremities-these are among the symptoms that suggest an immed tate trip to the doctor's But even without warning symptoms, many a wise man sees his doctor at regular intervals-far less ser vicing than he gives his car, yet obviously, infinitely more im portant

Parke. Davis



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Hypertonic—Alkaline—Carbonated—Not Laxative

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One liter of Kalak requires more than 700 cc. N/10 HCl for neutralization of bases present as bicarbonates. Kalak is capable of neutralizing approximately three-quarters its volume of decinormal hydrochloric acid.



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6 CHURCH STREET

NEW YORK CITY

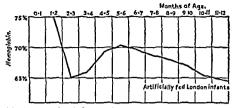
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Nutritional Anemia in Infants



Hemoslobia level in the blood of infants of various ages. Note fall in hemoslobia, which is closely parallel to that of diminishing iron reserve in liver of average infant. Charadpared from Mackay. It is possible to increase significantly the iron intake of the bottle fed from birth by feeding Destri-Mailose With Visiamia B in the milk formula. After the thard month Palbim offers substantial amounts of iron for both preast and bottle fed babies.

Reasons for Early Pablum Feedings

- 1. The iron stored in the infant's liver at birth is rapidly depleted during the first months of life. (Mackay, 1 Elvehjem.2)
- During this period the infant's diet contains very little iron—1.44 mg. per day from the average bottle formulae of 20 ounces, or possibly 1.7 mg. per day from 28 ounces of breast milk. (Holt.3)

For these reasons, and also because of the low hemoglobin values so frequent among pregnant and nursing mothers (Coons,4 Galloway3), the pediatric trend is constantly toward the addition of iron-containing foods at an earlier age, as early as the third or fourth month. (Blatt,6 Glazier,7 Lynch8).

The Choice of the Iron-Containing Food

- Many foods reputed to be high in iron actually add very few milligrams to the diet because much of the uron is lost in cooking or because the amount fed is necessarily small or because the food has a high percentage of water. Strained spinach, for instance, contains only 1 to 1.4 mg. of iron per 100 gm. (Bridges.?)
- 2. To be effective, food iron should be in soluble form. Some foods fairly high in total tron are low in soluble iron. (Summerfeldt. 10)
- 3. Pablum is high both in total iron (30 mg. per 100 gm.) and soluble iron (7.8 mg. per 100 gm.) and can be fed in significant amounts without digestive upsets as early as the third month, before the initial store of iron in the liver is depleted. Pablum also forms an iron-valuable addition to the diet of pregnant and nursing mothers.

Pablum (Mead's Cereal thoroughly cooked and dried) consists of wheatmeal, oatmeal, cornmeal, wheat embryo, brewers' yeast, alfalfa leaf, beef bone, tron salt and sodium chloride.

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Out of the wilderness-



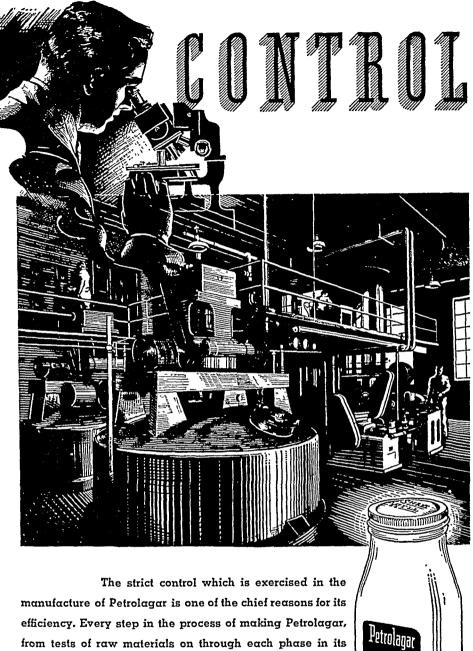
The first squawk of the newborn is an advertisement.

It may be a protest, a demand, or a declaration—but in every sense of the word it is "advertising" even though amateurish. Funny how little we realize that every sign or gesture we make, every word we speak, is a published announcement. In fact there is hardly one thing in the entire world that is not in some way an "advertisement." The man displays himself through his business or profession—the woman through every device created to enhance her charm and beauty. And so we might go on indefinitely enumerating the things that can be interpreted as "advertising."

In all this wilderness of effort to attract attention, power, and sustenance there are these things which we more commonly associate as advertisements.

Out of this wilderness, we come to concentrate on the advertisements that will enlarge our own mental equipment. Many such advertisements find their way into this JOURNAL, largely because the advertiser realizes that here is the proper place to find you interested and knows that this is the one place you are most apt to see his message.

Thus past results have advertised this JOURNAL's drawing power, just as its recent increase in circulation, greater than any other medical journal, advertises its recognition by more physicians.



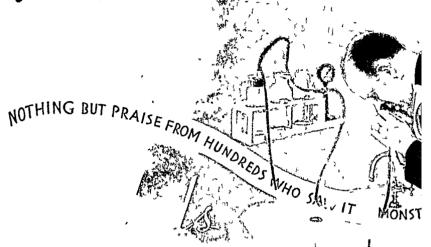
from tests of raw materials on through each phase in its production, literally comes under the exacting scrutiny of the microscope. Because of this control Petrolagar can always be relied upon for its uniform consistency and action.

Plain

Petrolagar is a palatable emulsion of pure liquid petrolatum, (65% by volume) and number One Silver White Kobe Agar-agar, accepted by the Council on Pharmacy and Chemistry of The American Medical Association for the treatment of constipation.

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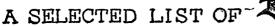
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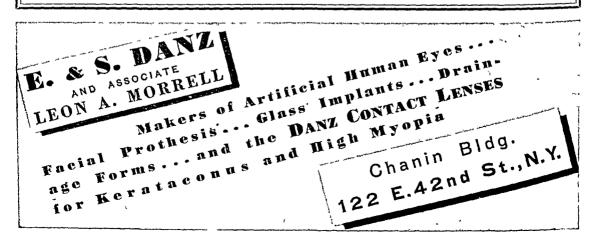
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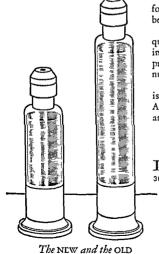
If the wound is extensive and contaminated with foreign matter, Tetanus-Gas Gangrene Antitoxin may be preferred to Tetanus Antitoxin alone.

Following the reports of Vener and others, the quickest possible use of a complete dose (200,000 units in divided dosage) of tetanus antitoxin seems to give promise of elevating the antitoxin treatment of tetanus to a more satisfactory position.

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CANNED FOODS AND THE PUBLIC HEALTH

V. FOOD IN THE OPEN CAN

• In September 1935, the facts about food in the open can were presented on this page It was stated that there was no reason, from the standpoint of food poisoning, why food must be removed immediately after the can is opened. This state ment bore the Seal of Acceptance of The Committee on Foods of the American Medical Association.

However, since that time, two incidents have occurred which lead us to present again the facts concerning food in the open can

First, late last fall, a national organiza tion dedicated to the relief of human dis tress during war and disaster, issued a list of precautions designed to reduce acci dents in the home, in which it was erron eously recommended that food be removed from the can immediately. The Depart ment of Agriculture detected this error and called it to the attention of those responsible for issuance of the recommen dations. A correction was made as soon as possible but the damage had already been done. The original safety recommendations had meanwhile been issued in schools and newspapers throughout the country, thus giving further support to this old unbased prejudice against canned foods

Second, in the early months of 1936, a release regarding food in the open can was made by a national press service to newspapers throughout the land The strong inference was made in this press re

lease that food left in the open can might become hazardous to consumer health

This dissemination of misinformation, referred to in the two instances cited above, has caused an increase in the number of consumer inquiries concerning the safety of food in the open can To reply to these requests for reliable information, we can well quote from a recent release made by the Department of Agriculture (1)

(1) USDA Press Release, Feb 23, 1936

'It is just as safe to keep canned food in the can it comes in—if the can is cool and covered—as it is to empty the food into another container. Thousands of housewives are firm in the faith that canned goods ought to be emptied as soon as the can is opened, or at least before the remainder of the food goes into the refrigerator—one of the per sistent food fullacies. The question keeps coming to the Bureau of Home Economics in letters from home makers.

"A few acid foods may dissolve a little iron from the can but this is not harmful not dangerous to health Cans and foods are sterilized in the 'processing' But the dish into which the food might be empited is far from sterile In other words, it is likely to have on it bacteria that cause food to spoil

"Whether in the original can or in another container, the principal precau tions for keeping food are—Keep it cool and keep it covered"

AMERICAN CAN COMPANY

230 Park Avenue, New York City

This is the thirteenth in a series of monthly articles, which will summa rize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached We want to make this series valuable to you, and so we ask your help Will you tell us on a post card addressed to the American Can Company, New York, N Y, what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Committee on Foods of the American Medical Association





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WALTER S. McCLELLAN, M.D., Medical Director

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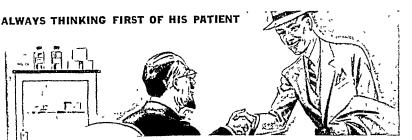
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THE CLINICIAN'S FUNCTION IN MEDICINE

1 HI RT HON LORD HORDER, KCVO, FRCP, London, England
Consulting Physician to St. Bartholomeu Hospital

I begin very initiarily, and very pleasurably, by a word of sincere appreciation of the kindness of your President in inviting me to address this distinguished gathering met under the auspices of the New York State Medical Society

I should plend for your indulgence were it not for two facts. The first is my assurance of that genial hospitality for which this country is so justly notori-The second is the realization that medicine has a brotherhood that is world wide, so that, although technically a stranger, the sense of colleagueship is already in my mind as I make this appearance before you There is a corollary to this last named piece of comfort in the recollection of the fact that between the medical men and women of your country and mine there has always existed a closer bond of fellowship than between the medical profession of any other two nations, and probably also a closer bond than exists between groups of men and women who follow any other profession or calling than ours

I Whatever may be the special branch of medicine that attracts us, it is com-, monly accepted that it is at the bedside where, on the one hand, the vital expres sions of diseases the manifested and where on the other, the contributions made by the laboratory, both to diagnosis and to therapy, must eventually be fested In the words of the great French clim unn, "Les malades, toujours les malades" But medicine provides such a large field for human interest and activity that there are many points at which a man may branch off into a whole life's work of relatively detached scientific effort. Any one of these digressions may take him so far away from the patient that, quite joyfully and quite successfully he may make valuable contributions to what becomes, in effect, pure science. He may then be tempted to consider clinical medicine but a poor affair, scarcely worth the pursuit of a trained intelligence Whereas I regard it as a very inviting field for the most highly cultivated minds -1 field in which meager achievement. far from indicating an essential poverty in the soil that is being tilled, signifies only that the husbandman is not always as alert and well equipped as he might However, what I say today is not intended as an apologia for the clinician so much as a brief survey of his place in medicine and how his functions are, in my judgment, best performed

In the view of some people the clinician has not advanced, or developed, proportionately with those of his colleagues who are primarily concerned with the uncillary subjects of surgical technic, bucteriology, and biochemistry Or, alternatively, the clinician's function has by some been considered to be super seded by those who engage in these lastnamed pursuits I cannot accept these estimates and I think they are due to a false, or a forgotten, conception of the clinician's function Although remains what it fundamentally always was-the collection and evaluation of all available data which are pertinent to the diagnosis and the treatment of the sick person-I believe that the growth of the means by which this function is achieved has been even greater in the case of the clinician than in the case of any one of his colleagues, for the reason that the

whole of their combined knowledge is available for him if he is familiar with it, and cares to use it.

As I say, the fundamental function of the clinician is to collect and to evaluate data. But what data? The clinician is not a mere collector of data. If he were, diagnosis, and successful treatment, would be as easy for one doctor as for another. Nor is he a mere recorder of cases seen. If he were, the palm would go to the hospital registrar or to the practitioner whose card-index system is the best-a consideration which waives a fact of which we are well-aware, that it is possible, nay easy, to see a great number of patients and yet not see their diseases. It is the *essential* data that we want, not the unessential. It is data that are associated, not data that are disassociated. The capacity to neglect is as important as the capacity to take notice. True, the more obscure the case the less we can afford, in the first survey, to omit any examination; but after a time there comes what may seem to some an almost astounding negligence. This is not forgetfulness, nor a lapse from methods; it is the ability safely to omit.

Of late years the clinician's function has fallen a good deal into disrepute. I want to analyze, as briefly as may be possible, some of the reasons for this.

The first reason that calls for comment, because it is undoubtedly a potent one, is the development, during the past thirty years, of laboratory methods of diagnosis. The study of the patient, qua patient, has been supplemented by the study of materials derived from the patient. Some of us saw the birth of clinical pathology, and many of us have watched this lusty babe grow up to a vigorous manhood.

As is wont with the virile adolescent, there have been times when he thought himself more important than he really was, when he sought to bestride the whole world of medical knowledge, when he firmly believed he was medicine rather than merely making his contribution to medicine. His incursion into the sick room was apt to be somewhat brusque, not to say at times truculent. Cuckoo-like, he jostled and pushed and oft-times succeeded in ousting his more timid and gentle colleague from the latter's legitimate sphere. He took to

describing himself in the telephone directory as "physician," and he invited the credulous sick to consult him. The public, with its child-like confidence in apparatus, loved him, welcoming his advent as signalling the millennium of exact medicine, and unaware that the human brain is the best machine of all. A catalogue of the flora of the fauces and/or of the faces, a complete blood count, a chemical analysis of the urine to the third place of decimals: "What further may be sought for or declared?" Not only was the new gospel about to dispel the darkness that shrouded diagnosis, it was about to illumine the therapeutic field also. The "opsonic index" for an exact diagnosis, the hypodermic syringe, charged with the appropriate antigen, for effective treatment, and medicine was "taped" at last. The clinician came to be regarded by some with amused tolerance; by others, even less generously minded, as obstructive to real Nosology disappeared and progress. pathology contracted down to the name of the infecting agent; patients no longer suffered from diseases but from microorganisms. To the question-"What is the matter with the man in bed 4?" the answer came—"T.B. . . . "

But fortunately for the patient, for whom, like the soul of Faustus, the powers of good and evil were fighting, some clinicians kept their heads. absorbed what was good in these clinicopathological advances, seeing in them important supplemental aids to their methods rather than a substitution for them. Conspicuously amongst these, Mr. President, the future history of medicine, if written with a due sense of the importance of this epoch, will record your own name, and I should like to pay you this tribute—that you have sought as much as any man to prevent the divorce of pathology from clinical medicine. the result of the new development was that the older and cruder notions of infection had to be entirely revised; and gaps in the knowledge of metabolism had to be filled. Not only was it necessary that the clinician should think vitally and morbid-anatomically, it was necessary that he should think bacteriologically and biochemically also.

During the recent period of intensive laboratory investigation on the clinicopathological side of diagnosis, the notion has arisen that the clinician's observations are not really scientific, that they are of the nature of guess-work, whereas every thing that happens in the laboratory is controlled by the infallible rules of logic. The argument went rather like this. The test-tube and the microscope cannot lie. But God alone knows if what the physician thinks is an enlarged spleen is the spleen; or if rose spots are not "any old spots;" or the association of a soft and infrequent pulse with a continued high fever is not some odd trick of Nature designed to intrigue the curious-minded; and why should not a week of intense headache pass away somewhat suddenly and be replaced by a muttering delirium; and an unexplained deafness appear? Funny things like these do happen to people who suffer from a disease of microbic origin. But the one certain thing is that the disease isn't typhoid fever, or any infection in the T.A.B. group, because there is no agglutination of the laboratory stains of those organ-

isms by the patient's serum.

Strange, this idea that facts have a different value according as they are observed at the bedside or in the labora-Stranger still, the idea that one negative observation in the laboratory should, even by responsible clinicians, be regarded as more important than the co-existence of six positive observations at the bedside. In the words of the logician, "we can never, by a single experiment, prove the non-existence of a supposed effect." If "science arises from the discovery of identity amidst diversity" then it matters not if the identity be discovered by careful observation of the patient clinically or pathologically. whole question is, is it a true identity? But this, in the last resort, depends upon the critical judgment of the observer. Granted that the exercise of judgment at the bedside is more difficult than it is in the laboratory, mistakes in judgment are not confined to the bedside. We have only to send a specimen of the same stool to two, or even to six, bacteriologists, equally expert, to find that failure to "discover identity" is by no means only a bedside difficulty. Here the question of criteria is involved, as we know, and criteria are not always uniform even

amongst laboratory workers. Their results are therefore, of necessity, not always comparable. Now the clinician's criteria are, in general, less exact than the pathologist's, nor can they be made so exact very easily; but if they are made severe, as they should be-if nothing is termed positive which is only doubtfully positive; if the clinician's judgment concerning his observations is controlled by reliable technic: if discovered identities are unequivocal-then the clinician's "facts" are as scientific and as logical as are those of the pathologist. The truth is that clear-thinking, with forbearance, is essential to the satisfactory solution of a diagnostic problem whether the contribution comes from the laboratory or from the bedside.

There is a technic of the mind as well as of the eye and of the hand, and the former is quite as essential as the latter. It is not only what you find at the bedside, it is also what you bring to the The eve sees bedside that matters. what it takes with it the power of seeing; in other words, it is the mind that sees. And surely it is the same in the laboratory? In both spheres there comes to some-slowly, painfully, towards the end (alas!)-facility born by patient practice out of time. Clinician and pathologist are more akin than they sometimes realize. Each of them takes a pride (which the other regards as excessive) in his small discoveries, and each of them lacks humility (or so the other thinks) in face of the certain fact that every day, whether it be in the ward or in the laboratory, momentous things are happening under their very eyes, yet they see them not, for they are both under the same ban—they cannot live in advance of their generation,

But clinical medicine is just now coming back into its own. The prince has taken notice of the neglected charms of our modest Cinderella. A marriage is being arranged. Professors are leading the bride to the altar, and the name of her bridegroom is Research. just time for me, as an interested and loving uncle, to give the pair my blessing.

"Let me not to the marriage of true minds Admit impediments. Love is not love Which alters when it alteration finds, Or bends with the remover to remove: . . ." And so is resumed afresh the long line of clinical observers which has been lit by the genius of Hippocrates, of Sydenham, of Trousseau, of Osler, and of many others—masters in clinical research.

II. Today we are witnessing the apotheosis of the machine in human life and it is not surprising to find that medicine. like other spheres of action, is being mechanized. The public has come to believe that machinery is revolutionizing the healing art and is dispensing with the need for human judgment. It is true that the introduction of instruments of precision into medicine has been of great service but the interpretation of the results obtained by them in the individual case still demands wisdom and experience on the part of the doctor. Where the machine is greater than the man the patient perishes. A large section of the public does not understand this. such an incorrigible love for apparatus, and what it produces, that it hailed with acclamation a box of gadgets, constructed in defiance of all scientific principles, which claimed to hand out an exact diagnosis, and even the appropriate treatment, and thus make the application of so fala thing as the human unnecessary.

Failing the reduction of medicine to machinery, the public seeks salvation in the specialist and the expert; and the more apparatus, and the more complicated, employed by these, the greater its confidence. The number of really intelligent citizens, whose health is their best asset, and yet who have no physician or general practitioner, has greatly increased of late years. In consequence of this fact, situations arise which are not only ludicrous but dangerous. Awaking in the night with a pain in the belly the immediate anxiety is not whether he will find the physician available, but whether the right specialist will be sent for. Is it the appendix, or the gallbladder—or the stomach—or the kidney-man he needs? What if he rings up the wrong one? Perhaps the trouble isn't in his belly at all, for he suddenly remembers that what his business friend thought was a severe attack of indigestion last week turned out to be coronary thrombosis. So perhaps it is a cardiologist he needs? God! how difficult life and especially medicine—is!

With the growth of specialism have appeared the diagnostic clinic and group medicine. I do not propose to discuss the pros and cons of this development. Undoubtedly the group system has its advantages, but I am quite sure that unless the team, whatever name it bears, has on its panel a general clinician of experience, it cannot effect the best service for the patient. For in the process involved there are two key points, both of them vital, at which his help is essential. There is the point at which, after a complete history of the case is obtained, and a general and thorough overhaul is made, the decision is arrived at as to what special examinations shall be undertaken; and then there is the point at which the correlation and interpretation of the results of such special examinations are considered in relation to the particular case. If there is no assessor whose duty it is to undertake these two important functions, the whole system breaks down. In regard to the first point, a sensitive and apprehensive patient may easily be made still more so by elaborate investigations which are not really indicated, or invalids may be constructed where previously they did not exist. In regard to the second point the danger is equally great. Patients' dossiers are apt, in these days to be so full and so heterogeneous that the courage to say of some of the reports, "noted, nothing doing," is often the first step in the elucidation of the problem. It falls to the clinician alone to become familiar with the range of health, to be sensitive to what lies within it, and to what lies outside it. The exercise of this sensitiveness becomes more and more essential the more meticulously exact the reports of the experts may be. And these reports tend to be more and more meticulously exact with the increasing tendency to specialism and the myopia which goes with it. The number of patients whose hearts are healthy is in inverse proportion to the number of cardiologists they consult, and the frequency with which they are "electrocardiographed." An upper respiratory tract which is passed as "normal" by a careful "nose and throat man" will soon be so rare as to merit demonstration at the Academy of Medicine

Some one must preserve his poise, and if the clinician does not, no one does. Think of the stunts—in diet, in exercise,

in clothes, in liabits-that the patient is besought to follow in order to be saved Think of the panaceas by way of drugs, or of operations Think of the many adventures in numerous therapeutic fields concerning which one can only say, when all is done, that one has been witnessing the triumph of technic over reason, Think, again, of the fears that are bred in the minds even of those who are well, that if they do not follow this cult, or that, they will die the death There are in my country, and I believe you are not free from them in yours, pernicious folk who try to plant in the public mind the idea that to preserve health is a very ticklish thing. The citizen is led to believe that only by a series of close observances, and equally close restrictions, can he hope for physical salvation The way of health is pictured as a tightrope along which we make a slow and trepidating progress The least bias to right or left, not immediately corrected or corrected maccurately and we plunge headlong into the abyss Here awaits us inflammations and ulcers and cancer—especially cancer Of the people who disseminate these ideas the worst enemies are those of our own household, because they are thought to speak with authority It is for the gen eral clinician to prick this kind of bubble, and to point out that health is really a broad and well-paved road and, speaking generally, and given a modicum of good fortune, the wayfaring man must be a fool indeed if he errs therein

Again, if the physician drops out there 15 no one left to make real contact with the patient on the psychological side. This becomes more and more a function of the doctor as men and women take more and more control of their lives the difficulty facing men and women is no longer that they are cramped by au thority and by convention but that they get fatigued, or even run themselves to destruction, by their new found freedom Realizing that the causes of their unhap piness, as of their physical ills, lie in the biological sphere, they seek the physician rather than the priest Bewildered by the prospect which their liberty opens out to them, and all unaccustomed to deal with the raw material of their natures as it is now revealed, they not seldom mistake their emotional confusion for physical illness and they come to us for guidance To them the doctor is the realist, the link between the "fine abstraction" which still beckons them, and the particular application" for which they The doctor is in the privileged position of the Almighty he, and only he, has—or can have if he will—all the "He that sinneth evidence before him before his Maker, let him fall into the hands of the physician" Why? Because to the physician the individual is not a metaphysical constant but a physical variable and this outlook enables him to lift up the weary head and to comfort the sorrowing heart. First the explanation, then the guidance, and hope, the best of tonics, is reborn

To be a little more concrete may I remind you that patients go in and out of our consulting rooms, and pass through clinics and groups, with the salient points of their cases undiscovered because they are handled as bundles of organs and functions and not as human beings. One such case in illustration A short time ago I was asked to examine a woman who had been put to bed on the advice of a cardiologist Half of the estimated six weeks had passed and my permission was sought to waive the other half on the ground that she seemed so well examined her and found no signs of Puzzled, I asked if I might see disease her alone When the doctor and the nurse had left the room the patient said, "You haven't found anything the matter with me, have you, doctor?" "No." I replied "I didn't think you would," said the patient "But why are you in bed?" I asked 'Well, you see, doctor, it was like this I am very attached to my husband and I suddenly discovered he was keeping another establishment shock was terrible, and I got no sleep for three nights Then I looked so ill that my husband insisted upon sending for the He found my pulse was very quick so he sent me to a heart specialist After his examination he advised me to go to bed for six weeks" "But why didn't you tell him what had caused your palpitation' I asked "I tried to" said the patient, "I tried to tell him twice, but each time he put his hand up and said Don't interrupt me, please, I am making my observations'

You may be saying to yourselves at this point, or long before it, "but all this boils down to a plea for the maintenance of the family physician, the general practitioner, that is." Very good; that is what I am saying, that and some other things. This because I see a gradual, but definite tendency to eliminate the physician that I advance many of these points. The spread of specialism and the increased interest of the public in medical matters have both of them combined to narrow the function of the general practioner, who is, or who should be, the clinician par excellence, almost to the vanishing point. I regard this as being no less dangerous to the public than it would be for the passengers of the ship if the captain left the bridge and the chief engineer, or the chief steward, or the radio operator, took his place. But I see the equivalent of this being done day after Whereas formerly, the physician kept control of the case and exercised his judgment in deciding the program of treatment, he now, all too often, stands aside and allows his specialist colleagues to take charge, over the shoulders of whom, as it were, he gets an occasional and momentary glance of his patient. Or and this experience becomes more and more frequent—he isn't there at all. The specialist is there from the first, one, or a number, for it is not uncommon to see a patient being treated by a committee, just as though he were a banking concern, run by a board of directors; only the patient is in a worse plight, because even a bank has its manager.

But the trouble is not alone on account of the growth of specialism and the egregiousness of the public. "The fault . . . is . . . in ourselves that we are

underlings."

To tell the truth, we are afraid of simplicity, and yet it is simplicity alone that can prevent the rot from spreading. Simplicity, with a dash of courage and independence. We are scared stiff, if the fact be known, lest, whilst we slept last night, or whilst we took our brief holiday, some great advance may have taken place in medicine of which we are un-But we needn't worry, for science, like nature, never proceeds by leaps. Besides, we shall hear all about it soon enough, either from the chemist's traveller, or from our patients, or from the headlines in the daily press. In other words, that lag, which is often called conservation, and for which we are so often censured, is an extremely useful asset in the doctor's mental equipment. For nature is herself conservative, and yields little or nothing to our hustling.

Meantime, we must try, quite tactfully, to break up the situation resulting from the patient's own knowledge ability—if I may use such a word, since this actually obstructs us in our getting to the root of his trouble. He knows a lot of technical terms, and quite often he can no longer tell us his symptoms in plain language. "What is the matter with you?" we ask him. "Blood-pressure, doctor," he replies. "No, but what are you suffering from?" "I told you, doctor, blood-pressure." And since we must make a beginning somehow we say, "Yes, but tell me how it is affecting you." "Oh, you mean my giddiness," or "my headache," and at last we are back at scratch. He carries his electrocardiographic tracing about with him and points out to us the deviations of the T-wave from the accepted normal. The x-ray pictures of his opaque meal have preceded his visit—with excess postage to pay-so-also have the results of a bio-chemical research, duly recorded, with a zeal more excessive than commendable, upon a form of enormous size . . . And if now we gently push these things aside and ask him a few simple questions and then examine him with our unaided senses, he thinks our methods are mediaeval. He little knows how ultramodern they really are . . .

Some of this pseudomedical knowledge on the part of the patient is paraded with a genuine hope that it may save time and also expense. Indeed, a wholesome corrective to the excesses of the clinic system is being made apparent nowadays by the necessity for economy on the patient's part. For it is a fact that modern doctoring has become too expensive for many people. When I asked a patient recently to let me examine him, he demurred, saying, "No, please give me something for my headache; I don't want a diagnosis, it costs too much."

But the path by which we regain our clinical acumen, as we must regain it in the patient's and our own interest, matters little: whether it be by the new road of clinical research or by frustration, or by economy or by sheer mother-wit. We never should have left the bed-rock of clinical medicine. And the sooner we return to it the better.

THE PROBLEM OF TUBERCULOSIS

KARL FISCHEL, M.D., Saranac Lake

This essay was awarded the Merritt H. Cash prize at the Annual Meeting of the Medical Society of the State of New York, New York City, April 27, 1936

Epidemiology

The difficulties of predicting changes in the tuberculosis death rate are so great and manifold that any prophesy as to its future trend is a rather hazardous undertaking. On the basis of innumerable statistics coming from most civilized countries and compiled under the most varying conditions, favorable forecasts are frequently made which are apt to full us into a feeling of false security. Statisticians are even inclined to project the future trend of the tuberculosis mortality for years to come and state that the death rate for 1940 will be thirty-five per 100,000 of the population.

Such positive statements, however, are hardly justified because the interpretation of tuberculosis statistics is fraught with many pitfalls, for morbidity and mortality rates are the results of numerous and complex factors; and the knowledge and significance of each single factor cannot be ascertained unless its variations can be observed in a series of surveys in which all other contributory factors remain constant. In tuberculosis more than in any other disease, the death rate is affected by so many racial, constitutional, economic, and climatic factors, that even wide fluctuations were not foreseen by competent experts. For instance the remarkable reduction in the incidence of tuberculosis since 1918 and particularly the steady decline during the five years of a severe economic crisis came as a pleasant surprise to many who are interested in the control of the disease. On the other hand the sensational rise in the death rate in all countries that participated in the World War was an unexpected blow to all those who believed implicity in the effectiveness of specific antituberculosis measures.

Optimistic observers may claim that it should be possible to foretell the trend of the mortality curve with some degree of accuracy. After all, tuberculosis is an endemic disease with a marked tendency

to a chronic course, and we are safe in assuming that not even the most adverse conditions could produce sudden changes in its epidemiological features. We can hardly conceive of tuberculosis as the cause of an acute epidemic, such as plague, cholera or influenza, with unexpected and sudden exacerbations and equally dramatic remissions. But if tuberculosis, as other infectious diseases, follows a cyclic course and if, as experienced observers claimed, the descending mor-tality curve may be interpreted as the phase of remission in the wave-like periodic fluctuations which are characteristic of all true epidemics, then no one can deny the possibility of an increase in the incidence due to the periodic return of the wave. Is the eternal rhythm of push and recoil, of up and down noticeable in tuberculosis too? Are we really, while at the height of our hopes, at the bottom of the periodic ebb to be carried again to the crest of another wave by the next turn of the tide? It does not seem probable, yet no one can answer these questions with any semblance of definiteness because the few decades which are covered by dependable vital statistics do not allow us to recognize or deny wave-like fluctuations in the trend line. We may assume, however, that if tuberculosis follows the law of epidemic periodicity and if rise and fall in its mortality are to be interpreted as cyclic movements, then the waves of increasing or declining incidence peculiar to this disease must be of greater length than depth, and bear little resemblance to the tidal waves which are noted in true epidemics,

If we accept the theory that all epidemic manifestations are the outcome of loss of equilibrium between the infecting agent and the resistance of the population at large, a discussion of all factors which are apt to change this balance one way or the other will serve to throw light on our problem.

The Reservoir of Infection

Because the tubercle bacillus is an obligatory parasite and cannot exist for any length of time outside the human or animal body, the sum total of open tuberculosis is equivalent to the reservoir of infection. On account of the sharp and accelerated decline in tuberculosis mortality, it is at present smaller than it has ever been and it is moreover steadily diminished by the segregation of carriers; by early diagnosis and above all, by the systematic education and instruction of generations of sanatorium patients in the simple rules of prophylaxis. It is more than a mere coincidence that the greatest strides in the control of the disease have been made in countries with a welldeveloped system of sanatoria and clinics, whereas inversely the specific death rate is comparatively high where the sanatorium movement was started much later and the number of available beds in institutions is still small. The density of infection in the population is at present at an unheard of minimum, with less exposure than ever before; a fact which is evidenced by numerous tuberculin surveys which clearly demonstrate the steadily declining frequency of infection. Numerically the decrease in the number of potential sources of infection is indicated by morbidity statistics (made possible by laws adopted in most of the States which made tuberculosis a reportable disease). But the exposure to infection has actually been reduced to a much greater extent by the systematic antituberculosis campaign. The reservoir of infection—which seemed so inexhaustible thirty years ago that tuberculosis always was called ubiquitous—is definitely being emptied. From the epidemiological point of view and disregarding for the time being all other favorable developments, it can be said that the greatest achievement and one for which credit must be given to human enterprise and organized efforts, is the quantitative reduction in the amount of infection in the population. The result of our improved defensive measures which began in 1900 is the most remarkable change in the relative strength of infection and defense.

The Parasite Factor

The tubercle bacillus is of lesser

importance as an epidemiological factor than in other respiratory infections which from time to time cause rapidly spreading and devastating epidemics. It is a slowly growing organism which cannot multiply outside of the host under the most favorable circumstances; it is mostly transmitted from a carrier by direct or close contact. Differences in virulence have been observed and we know that strains of greater or lesser virulence can be cultured from the sputa of patients who show wide variations in the clinical picture and course of their disease. In this connection, a question which, to our knowledge has never been raised, presents itself. One may ask whether or not the clinical aspects of pulmonary tuberculosis have changed in the course of the last two decades? In other words, whether or not qualitative as well as quantitative changes in the parasite have occurred which would have a bearing on our problem. The increasing frequency of infiltrative forms with a history of an acute onset and unusual localization below the clavicle is hardly explained by improved diagnostic methods because, even in the short time since these lesions have become fully known, a high percentage of infiltrative processes is being reported. The textbook type of chronic phthisis with its slow apico-caudal extension, on the other hand, seems to be on the decrease. The childhood type which, as name indicates, was considered atypical in adults, is at present found more frequently in age groups above twenty, and is distinguished by accentuated allergic symptoms. If such changes in the clinical picture of pulmonary tuberculosis should be corroborated by further observations they could be ascribed either to overwhelming doses of infection, to a greater virulence of the infecting parasite, or to an alteration in the reaction of the subject due to a delayed contact with the tubercle bacillus and concomitant increased sensitiveness. The latter possibility will be discussed under the next heading.

The Immunobiological Factor

Ever since Koch's time the view has been generally accepted that contact with the bacillus confers a certain degree of immunity in tuberculosis, and that, as a rule, the course of a subsequent reinfection is milder. Then, after the introduction of tuberculin tests, the first surveys disclosed the enormous diffusion of tuberculosis throughout the world and led to the belief that infection with the tubercle bacillus is an inevitable event in civilized countries. "In human beings as in animals an infection of a mild nature is very desirable" stated Calmette. added "Viewed in this light the practical prophylaxis of tuberculosis ceases to be that of the infection and becomes the prevention of the disease." Consequently attempts were made to induce this theoretically desirable state of immunity artificially and intentionally by well-measured doses of infection instead of waiting for the unavoidable chance infection which may prove excessive. Calmette's method of vaccination with the mitigated B.C.G. strain has been and is still being used on a large scale in various European countries. Diametrically opposed to this method, which aims at the prevention of clinical disease by immunization of the child shortly after birth, is the principle of prevention of infection on which the fight against tuberculosis in England, Germany, the United States and other countries, has been successfully organized. Judging from the greatly reduced mortality and the steadily decreasing incidence of infection as evidenced by the low percentage of positive skin reactions, the progress made since 1900 is truly remarkable and it seems that success in the control of tuberculosis by the method of prevention of infection is within sight.

A comparison of early and late tuberculin surveys demonstrates the success of our prophylactic measures. Group examinations made in Framingham in 1917 and repeated under similar conditions in 1926 showed a reduction of twenty-three per cent in positive skin reactions. In other districts, particularly in rural communities, the figures were even lower. While there are considerable variations in the number of reactors in different communities, the average for the age of fifteen has been estimated at approximately fifty per cent. Now, with the prevailing views on tuberculoimmunity, it is rather difficult to evaluate the part which the increasing anergy of children

of school age may play in the incidence, development, and clinical course of active disease in later life. The frequency of exposure measured by tuberculin reactions must have a definite relationship to future morbidity and mortality, but only the correlation of present surveys to the death rate of 1945 will tell us whether the increased anergy created a situation to be worried about or elated upon. If we remember the malignant course of acute forms of tuberculosis in races that had no previous contact with the bacillus of Koch; if we consider the higher incidence in rural immigrants to big cities; the greater percentage of disease among nurses who had reacted negatively, and finally if contact with the tubercle bacillus confers any degree of protection, then we must hesitate to interpret the prevailing tendency anergy unconditionally as a desirable phenomenon. This view seems to be supported also by reports made at the Second International Pacific Health Conference held in Sydney in 1935, which indicated that native races (Maoris, Solomon Island, etc.), are now capable of withstanding the invasion of tuberculosis. At the same time there were observed positive skin reactions of between sixty and eighty-seven per cent for adult and fiftyseven per cent for children between six and sixteen.

One is tempted to speculate that the immunobiological factor must have some influence on the mortality and morbidity rate in tuberculosis inasmuch as with a higher death rate the number of contacts with positive reactions will be greater, which fact will tend to reduce the incidence of active and progressive disease. Then with lessened exposure, the number of contacts and positive reactors will drop and a greater number of anergics will grow up without the protection of . an early infection, thus establishing alternating cycles of anergy and allergy. One cannot doubt that anergy is a potential source of danger in exposed groups but the role it may play as an epidemiological factor for the population at large is not known at all. The only conclusion that can be drawn at the present time is that prevention of infection becomes the more imperative the higher the percentage of negative reactors rises.

· The Transmission Factor

The recognized method of combating epidemics by the isolation of the sick can hardly be applied in respiratory infections, which for this reason at times run out of control. In tuberculosis, very fortunately, it is possible to stop a spread effectively at the source of infection. The effectiveness of all preventative measures consequently depends primarily on the early detection of open cases and prompt hospitalization. Obviously, the length of time between the first appearance of bacilli in the sputum and the time when the case is reported, is equally important as the absolute number of reported cases. A real problem for the public health authorities is, therefore, diagnosis and management of certain symptomless forms of incipient tuberculosis. On account of the frequent absence or insignificance of subjective and objective signs and the onset which is in no way characteristic, cases of early infiltrates cannot be diagnosed by the usual methods of physical examination, but require the use of special procedures. On the basis of the newer views, other methods have in fact, therefore, been devised. A systematic search for the unknown source of infection by tuberculin tests and investigation in every reported case of open tuberculosis; regular examinations of certain exposed or occupational groups, and the wider use of serial roentgenograms, have given very encouraging results. These methods will undoubtedly prove of great value in prevention if provisions are made for the immediate hospitalization of such patients.

The Economic Factor

For many years living conditions in the United States have been so favorable and the standard of living so high that the well-known contributory economic factors which are considered pacemakers for phthisis and present problems in other countries, required but little attention in preventive work here. The significance of each single factor, such as income, wages, food prices, housing conditions, size of families, occupations, and so on, have been studied in numerous painstaking surveys which seem to prove uniformly that adverse living conditions

make for the break-down of human resistance, and tend to increase the incidence of tuberculosis. Unfortunately, however, all these studies are based on an arbitrary isolation of facts and fail to take into account the complexity of all factors which must be held responsible for the confusing variations in the death rate in different groups.

At the beginning of the depression these studies, and particularly the experience of the war and after-war years, caused considerable apprehension in the minds of many observers who anticipated an increase in our tuberculosis mortality if we had to face a long period of abnormal economic conditions. Contrary to the expectations the specific death rate has continued on its downward course and we can now look at the prolonged crisis as another experiment similar to the war and on an equally gigantic scale—affecting as it does over thirty three millions of unemployed the world over-which takes place under our very eyes but under entirely different conditions.

In the first place the immediate action of modern war runs counter to natural selection since the strongest and fittest are first exposed to injury and death and the less fit have, at least in the beginning, a better chance to survive and to propagate. Modern war, however, has a second phase which affects mostly the stock of lesser quality. With the enormous losses in the most valuable groups of the male population the less fit were drafted in all war countries for military service and industrial duties. At this stage the tuberculosis death rate began to climb sharply in proportion to the scarcity of food and living conditions in general. The second human reserve simply could not adapt itself to increased exposure, hardships of all kinds and long working hours, and the rising tuberculosis death rate is the tale of many "an unknown consumptive" or potential consumptive who died from changed environment. The disastrous influence of this sudden industrialization is strikingly reflected in the female rate, which to give an example, jumped in Germany from 137 to 228 between 1914 and 1918.

Another combination of variables presented itself with the onset of the depression which caused the demobilization of all those below par. Those who were less resistant and less fit for work were the first to be laid off. The chronic consumptive, partially disabled, who in normal times had frequent relapses because of his attempts to be self-supporting had, with increased unemployment, no chance to find part-time work which he was able and anxious to do. He was compelled to discontinue working. Malnutrition and starvation are, of course, the most serious dangers in long periods of economic distress but do not seem to affect the specific mortality unless combined with the excessive labor and uncertainty of war times. If the minimum food requirements are met, the weak and less resistant and the chronic consumptive with arrested or quiescent lesions, who in normal times are severely handicapped in their struggle for employment, appear to be definitely better off by being forced to be idle.

The comparison between the influence

of warfare and economic war will serve to throw into holder relief the overwhelming importance of environment. At the same time the essential difference in the action of the forces at play will be recognizable. During the war the concurrence of a great number of adverse circumstances resulted in a sharp increase in the incidence of tuberculosis in most war countries, while during the present world depression the single factor of nutrition is apparently counterbalanced by the protective elimination of the weak from the labor market. As far as tuberculosis is concerned, the deleterious effect of deficient nutrition seems to have been neutralized or at least delayed by the powerful factor of enforced rest and avoidance of fatigue; principles which have been applied with great success in the treatment of the disease. We may, therefore, look upon the depression as an experiment on a large scale which demonstrates the significance of overexertion as an undesirable environmental factor.

The Diagnostic-Therapeutic Factor

To what extent improvements in diagnosis and treatment have contributed to the reduction in the specific death rate is a matter of mere guessing. Morbidity reports alone or in conjunction with vital statistics do not permit us to estimate the number of cures or the slowing down of

the death rate due to prolongation of life by early or more effective treatment unless all the cases are followed up. The only accurate statistics have thus far come from Norway, the first country to adopt a tuberculosis law (1900). According to Roesle who compared the records of the city of Oslo for the year 1920 with those of 1927, the percentage of cures there has increased within six years from three per cent to 6.7 per cent of the entire morbidity. Since then further progress has undoubtedly been made and we can assume that a greater number of cures is effected by the wider use of artificial pneumothorax and more radical surgery, while prognosis for the incipient case has been rendered more favorable by early diagnosis and immediate treatment.

The innumerable disconnected reports on small groups do not give a true picture of results obtained with pneumothorax and cannot be used for composite figures. There are wide variations of indications, a lack of standard of classification of the final outcome and great differences in the time of observation. Very often no distinction is made between early and late pneumothorax. The percentage of clinical and economic cures can be roughly estimated at fifty per cent. (Rist, Matson, Roloff, and others.) A further reduction in therapeutic failures and an increase in the percentage of sputum conversion can be expected from the early application of artificial pneumothorax and a more extensive use of intrapleural pneumolysis.

Similar difficulties are encountered if one attempts to evaluate the therapeutic effect of thoracoplastic operations. Here again lack of unformity in indications, time of observation, and particularly in operative technic, accounts for considerable differences in the final results and in the ratio of sputum conversions. More radical surgeons may have a higher operative but better late mortality, while more cautious workers have, as a rule, more favorable immediate results but have to resort to re-operations more frequently. The percentage of cures ranges between forty and fifty per cent and that of definite improvement between fifteen and twenty per cent.

Since success or failure of treatment and of all preventive measures depend primarily on our ability to recognize pulmonary tuberculosis at the very onset and to treat and isolate potential sources of infection, the diagnostic-therapeutic factor must in future assume greater significance in proportion to the progress in our ability of finding the early cases. The so-called newer views on the pathogenesis of tuberculosis, with the conception of an essentially acute infectious disease, are supported by such convincing evidence that they must be considered in the discussion of our problem. We are at present not concerned with hair-splitting debates about the first localization of the focus of reinfection or the merits of Ranke's classification. The facts which are of enormous practical importance are that tuberculosis very often begins in regions where it cannot be recognized by physical exploration alone; that the initial symptoms are frequently insignificant and misleading; that infiltrates may progress rapidly, and that a great number of patients reach the far-advanced stage in a much shorter time than could be expected with the slow apico-caudal extension which is still taught in text books. This new conception must necessarily bring about profound changes in our present therapeutic and preventive methods.

This chronic, slowly developing disease led logically to a cure extended over a long period and the most conservative treatment seemed justified. But if tuberculosis develops and advances rather acutely, the main reason why the disease is still considered chronic is the fact that the damage suffered by lung tissue during short and acute periods cannot be repaired in a short time. Heretofore our therapeutic efforts have been focused on phases of repair during which the patient was kept in institutions in order to recuperate from the after-effects of acute exacerbations. The question may be raised whether the results could not be improved if our efforts were concentrated on these short periods of exacerbations and by hospitalizing the patient promptly at a time when rapid progression and extensive tissue destruction are imminent, dangers which must be and frequently can be averted by immediate action. Disregarding financial considerations which create a demand for more time-saving and a less expensive way of treatment, the fact must be decried that public institutions

are blocked by patients in the stage of repair who are admitted after much "redtape" and thorough investigations at a time when most of them had gone through the most critical periods of their disease.

From the mere fact that, in the course of the disease, acute exacerbations occur which resemble surgical conditions inasmuch as they demand immediate attention and very often prompt action, the necessity of admission of these emergency cases to public institutions seems obvious. The mills of bureaucracy grind slowly, too slowly for the proper management of acute forms of tuberculosis. Time is an important factor and prompt placement in a sanatorium or pneumothorax in time may decide between a localized lesion and rapidly advancing tuberculosis. There are still State sanatoria for the care of incipient tuberculosis while clinics and physicians in the big cities are forced to resort ambulatory treatment by bilateral pneumothorax, which fact in itself is proof that we need an increase in and a more advantageous utilization of available hospital facilities.

The old sanatorium, situated in health resorts and frequently at some distance from the metropolis which it serves, is probably a thing of the past and will be replaced by the tuberculosis hospital with a large surgical ward. To give best service it should be easy of access. One can visualize it as a lying-in hospital with a quick turn-over for the acute stages and with a well-organized outpatient department for the ambulant patient and finally a large visiting medical and nursing staff to supervise the patients in home care and bring treatment to them. Under these conditions a five hundred bed hospital should have a yearly turn-over of one thousand patients or more, and could take care of all discharged patients in its district who could be readmitted at once if

the necessity presented itself.

The discovery of the early infiltrate with its unobtrusive symptoms created an entirely new situation for public health agencies. Before the disease manifests itself the infection can be spread in schools, work-shops, boarding-houses, and households, and it is, therefore, the task of dispensary workers to go more systematically than heretofore after the incipient

case It is necessary to search for the early infiltrate by radiographic and other examinations, it does not force itself upon the observer but it is more danger ous while unknown as an unsuspected center from which households or workshop infections can spread. Once such a case of pulmonary tuberculosis is diagnosed in its very incipiency a search for the offending carrier should be started and no history should be considered complete unless the source and mode of infection is established. The feverish activities into which public health departments are thrown by the report of a single case of typhoid or diphtheria is still in strik ing contrast to the indifference toward a new case of a disease which still rates seventh in the list of causes of death

Early diagnosis campaigns and the wider use of Roentgen examinations have been of great value in case findings but these methods should be supplemented with a systematic examination of certain occupational (teachers, nurses, barbers and food handlers) and exposed groups Instances of active tuberculosis have been repeatedly found in apparently healthy groups where one would least expect to detect the presence of open tuberculosis It is well-known that from such sporadic cases small household or workshop epi demics develop unless the carrier of the braille is promptly detected. In order to trace the road of infection from the unknown source of infection to the known case of clinical disease, investigations must be resorted to which at times require real detective abilities. In rural communi ties, a positive skin reaction in children who live in the same house or the same neighborhood has been used as an excellent means of locating the source Be cause transmission from a heretofore un known carrier may have taken place, all contacts must be considered an exposed group and supervised as such It will be seen that knowledge of infiltrative lesions should enable us to stop loop holes in our system of preventive measures which were not recognized before

It was not the purpose of this article to discuss any of the many aspects of tuberculosis in detail, but rather to analyze the influence of the numerous complex, and often interrelated factors

which by their combined action determine the rate of death in tuberculosis. The strides which have been made are so impressive because we have good reason to believe that the deep indentation which the mortality curve shows between 1900 and 1930 is due to dichberate and conscious human efforts, even though circumstances over which we have no control may have been in our favor. It will be up to civilized society to continue the work, which is far from being completed

Under normal circumstances, the prediction should be ventured that we can hope for a further reduction in the frequency of tuberculosis. The turning point will obviously be reached at the time when the incidence of clinical disease is so low that the recognized methods of combating communicable diseases-by isolation of the sick and all contacts-can be applied Until such time, the conquest of tuberculosis is not accomplished, and we must be prepared for reversals, especially if in the course of the prolonged economic crisis lack of funds should cause a general letting down in organized anti tuberculosis work. At a time when all values have tumbled and so many assets had to be classified as frozen, the health and productivity of the great mass of people remain the outstanding and most tangible assets of a nation and it would be the short sighted policy of the penny-wise and dollar-foolish to curtail preventive activities at this critical time, for the sake of economy

At a period which finds the whole world in turmoil and out of balance, any definite prophesy as to the future trend of the specific death rate would amount to a prediction of the march of events in world affairs Tuberculosis is so intimately bound up with universal economic factors that the final conquest depends on the restoration of normal conditions and the preservation of civilization. The tuberculosis problem, with its wide rami fications, is closely linked up with, and cannot be separated from, other momentous issues of the day, and the tuberculosis mortality of the future is, therefore, bound to show reverberations from the solution of other urgent problems, be it inflation, commodity prices, unemployment, free trade or disarmament

SURGICAL MOTION PICTURES SIMPLIFIED

BOARDMAN M. BOSWORTH, M.D., New York City

Perhaps the chief explanation of the regrettable fact that more motion pictures are not taken of surgical procedures lies in the two-fold difficulty of providing adequate illumination and camera facility at close range without impeding the operating team. It is a simple enough matter for any photographer to set up his camera tripod and a number of light standards and produce a fairly good picture of some simple operation-provided the surgeon and his assistants are willing and able to slow down their work and even interrupt it from time to time. This, however, is neither desirable nor permissible in the majority Good surgery demands of procedures. undivided attention to the work in hand: smooth teamwork is essential; and the distraction entailed by photographic paraphernalia scattered about the room is not conducive to either the one or the other. So it has come about that the photographer is hardly a welcome addition to any operating room.

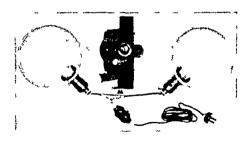


Fig. 1. Light bracket mounted on camera.



Fig 2. From subtotal thyroidectomy filmed with bracket. (Courtesy of Dr. John Garlock, New York Hospital).

It was in an effort to solve this problem that the light bracket shown in the accompanying illustration (Fig. 1) was devised. It consists simply of a narrow strip of steel supporting a photoflood bulb (with reflector) on either side of the camera. As the lights are thus mounted directly on the camera, no tripod is necessary. The photographer actually takes what he sees. with excellent illumination, wherever he points the camera. In this way it is possible for him, clad in sterile gown, to stand directly alongside the surgeon at the table and take pictures at varying angles and distances, between eighteen inches and four feet from the field.

The single wire from the bracket is draped over the photographer's shoulder, pinned to the back of his gown and plugged into an ordinary extension cord, which permits him to move to any part of the table without danger to the sterile operative technic. It is also possible to stand on a stool and take pictures looking directly down on and into the field, as in filming a gastrectomy, cholecystectomy, hysterectomy, with complete illumination of the depths of the wound.

Each light has its own switch, of course, but a master switch is incorporated in the line just beneath the bracket. As the lights are mounted 71/4 inches apart and are tilted away from each other, their cross-illumination eliminates deep shadows.

The apparatus is simple, light, strong, compact, and easy and inexpensive to make. The specifications are:

- 1 Strip of sheet metal 8¼" x 1" x ½", bent down at an angle of 135 degrees ¾" from each end; ¼" hole in the center for knurled camera screw; hole in each end for brass bushing.
- 1 Knurled screw for attaching camera to bracket.
- 1/8" brass bushings 2 Ordinary light sockets.
- 2 Small light reflectors.
- Photoflood bulbs.
- Line switch.
- 1 Outlet plug. Electric light wire 6 feet.

Much of the above material can be purchased in any five and ten cent store.

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Dr. Joseph C. Doane, Medical Director of the Jewish Hospital, Philadelphia, is to give the short course in hospital operation offered this summer at Cornell University in the

Summer School of Hotel Administration, June 29 to July 11. Information may be had from Prof. Howard B. Meek, Cornell University, Ithaca, N. Y.

SILICOSIS

Diagnostic Difficulties

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Silicosis is a pathologic condition of the lungs due to the inhalation of silica, free or combined, in such a state as to be capable of setting up its characteristic pathogenic effects. Principal factors that determine the incidence of silicosis are; (1) the percentage of free silica in the inhaled dust; (2) the concentration of silica particles less than ten micra in diameter in the atmosphere; (3) the duration of exposure to the dust; (4) the susceptibility of the individual exposed as modified by complicating infections.

This disease is essentially a fibrosis of the lungs developing especially in such industries as hard-rock metal mining, granite cutting, metal grinding, and sandblasting. The pathological changes are believed to result from two causes, a blocking of the lung lymphatics by mononuclear cells laden with dust in addition to the action of silica, the exact manner of its action being in doubt. The small particles under ten micra are the only ones capable of penetrating the

lung tissue. Although silica plays the dominant role in the production of silicosis, the admixture of other dusts tends to modify the pathological changes in the lungs and the modification bears some relation to the percentage of free silica in the mixture. Silicates, as in asbestos, produce a definite change in the lung. Such changes are represented by a fibrosis due to insoluble minute particles of minerals in sufficient concentration being brought by the activity of phagocytic cells into intimate contact with the pulmonary connective tissue. This fibrosis is a diffuse cellular one that occurs in the walls of the smaller bronchi and of all their finer divisions, and extends to involve the supporting connective tissue of the adjacent blood vessels and to some extent also the walls of adjacent air spaces. However, when the great majority of the inhaled particles are composed of or contain silica, there develops, in addition, a specific and localized type of fibrosis called the silicotic nodule-an orderly whorled arrangement of cells and fibers, and with sharp definition from the adjacent parenchyma. Many dusts create a generalized fibrosis but only one, namely dust containing silicon dioxide, produces the special fibrosis of silicosis. Sericite. known as white mica, which is a hydrated silicate of aluminum and potassium, has not produced in animal experiments the silicotic nodule but instead a

generalized fibrosis.

Dusts must be differentiated into those which are chemically active and those which are inert when inhaled into the respiratory tract. Silica is a chemically active dust which most likely is soluble to a degree in the body fluids; its activity probably depends on its solubility,* This activity which is manifested in the areas where dust particles are carried along the lymph stream by phagocytes, causes lesions of two types, "toxic" and "sclerotic," both of which have been reproduced experimentally. Toxic lesions depend upon local necrosis and slow death, and appear to favor the growth of tubercle bacilli; the sclerotic lesions produce the nodular fibrosis. The inert dusts are insoluble in body fluids and cannot exert chemical action in the lung tissue, but if they accumulate to a marked extent, their effect is mechanical which may lead to a certain amount of diffuse fibrosis around the dust deposits. Certain dusts, such as carbon, may have physical effects, they may adsorb toxic substances and it has been suggested that on this basis there is a relatively lower incidence of active clinical tuber-

From The New York Hospital, and The Department of Medicine of Cornell University Medical College

^{*} Heffernan,1 of Derbyshire, England, most recently stresses not the solubility, but the electro-chemical activity of the free ions of silica at the "open" surfaces of dust produced from silica crystals as the damaging factor in setting up fibrosis.

culosis in silico-anthracotics than in silicotic lungs.²

Diagnostic difficulties often prevail in the recognition of silicosis in the general hospital. A definite history of exposure must be established. In general hospitals where patients are migratory, conditions under which they worked may be vaguely described and inasmuch as data on dust counts and silica concentration are not available, the history may be misleading. It may be necessary under such circumstances to visit the industry in which the man worked and to determine from the employer the exact amount of time spent in different portions of the plant.

The diagnosis of silicosis is made primarily on two findings, the proper history of occupational exposure to silicious dust and the presence of abnormal shadows on pulmonary x-ray. The physical examination and the patient's symptoms are of less value. There are other diagnostic aids such as the finding of large quantities of silica particles in the sputum. quantitative determinations of silica in urine, and at postmortem, chemical analyses of the lung ash, supplemented by petrographic examination, Roentgenray spectrum analysis and special incinerating studies of lung tissue. We must at times fall back on the pathologist to determine the amount and distribution of fibrosis due to silica, and from microscopic studies give an opinion on the importance of this fibrosis as the ultimate cause of death.

Lung fibrosis may be present without any silica. Silica may be present in lung tissue or the pulmonary lyinph channels without associated Finely divided silicious particles from lung tissue may contain innocuous silicates which cannot be distinguished from harmful silica particles. Hydrated silica which is not doubly refractive cannot be demonstrated with prisms. Therefore in the pathological section the presence of silicious fibrosis can be suspected but cannot be specifically identified with the silicious material that it may contain. Accordingly the microincineration method of Irwin³ with hydrochloric acid is now included in the examination of any lung "as a means toward a surer diagnosis."

The diagnosis of silicosis must be distinct from the clinical evaluation of the patient's functional disability. To a

degree, emphysema seems to be compensatory in nature although it may become a causative factor in the development of functional impairment. Emphysema, present to the degree of causing decompensation, cannot be determined from physical or roentgen signs until it is quite far advanced. At this stage clinical functional findings such as carbon dioxide retention and O2 diminution in the alveolar air, body retention of alkali compensate for CO₂ retention). increased hemoglobin and red cells due to decreased O₂ capacity, have all proven humoral criteria of functional disturbances in emphysema and may be looked for in severe silicotic functional disability. although they do not necessarily occur proportionately to the degree of silicotic fibrosis.

It must be emphasized, however, that due to the ever-present combination of fibrosis with emphysema of compensatory or contrary nature, the functional disability is often out of proportion with the degree of the silicotic fibrosis. This disproportion is evident in two directions; one may have obvious marked silicotic fibrosis with much compensatory emplysema when the functional impairment is slight, or one may have very severe functional impairment in cases where the real extent of the silicotic fibrosis is obscured by the associated emphysema. Obviously an individual appraisal functional disability must be made in each case on the basis of functional capacity tests which should corroborate clinical subjective or objective evidence. There are great individual variations in the ability of pulmonary tissue to compensate for pulmonary fibrosis. Compensatory emphysema or possibly compensatory lung hypertrophy may, in one patient, prove adequate in preventing functional disability of extensive fibrosis, and yet in another patient prove inadequate for a fibrosis of much lesser degree. Emphysema is not necessarily a sign of functional impairment.

Diagnostic difficulties in clinical medicine may be more obvious if we examine first the occupational history. Workers in the same industry, indeed in the same room, experience different degrees of exposure dependent upon perhaps the dust-filtering capacity of the nose and the functional condition of the lung as deter-

mined by constitutional characteristics and antecedent disease. The size of the particles of silica, as well as the dosage, will influence the rate of development of the disease. A definite history of exposure must be established. In general hospitals where patients are migratory, conditions under which they worked are very vaguely described, and there being no available data on dust counts and silica concentration, the history is often misleading.

As to symptoms, patients can often perform strenuous labor despite extensive disease and the symptoms of dyspnea and cough are common to many diseases. Fever is absent unless infection occurs, but most important is the great disproportion between a patient's complaints and what is seen on the x-ray, the latter showing extensive abnormal shadows in comparison with the symptoms.

On physical examination, extensive disease may be present and few abnormal physical signs. The physical signs are those of a general pulmonary fibrosis with emphysema such as restriction of costal and diaphragmatic movement, diminution of or intensified breath sounds, and a hyperresonant note. Rales are usually absent unless infection is present.

As to the x-ray, there are three essential types of shadows described: linear strands, small discrete shadows, and homogeneous shadows of varying sizes; these correspond to the fibrous strands, silicotic nodules, and the conglomerate masses of fibrosis. The nodular shadows are usually characteristically around the hilum or may be distributed in the upper two-thirds of the lung fields, perhaps more pronounced on the right side, with the lower third kept clear by emphysema; or conglomerate nodular shadows of batwing appearance often extend into both upper lung fields. With infection present. the shadows are less sharp or the linear strands interconnect or fuse. Large conglomerate shadows appearing out from the hilum often leave the periphery of the lung clear throughout because of emphysema. Variations from these patterns are seen in the x-ray, especially under excessive exposure or when other dusts are inhaled, or in the presence of infection.

It is probable that the main source of the diagnostic diffculties is caused by the emphysema which obscures the physical signs and is responsible in great part for the absence of symptoms. It may blot out, even on x-ray, the silicotic lesions of fine size. Examples of such difficulties in diagnosis as encountered by us are the following:

Case 1. A forty-five year old man entered the New York Hospital complaining of mild cough and expectoration of four months' duration. He appeared acutely ill, his fever was 103° F., and respirations twenty-eight. Rales were elicited over the upper half of the left chest. Examination of his eye grounds revealed bilateral retinal tubercles; his sputum contained numerous acid-fast organisms. The x-ray revealed fine mottled shadows distributed throughout both lung fields and a small cavity at the left apex. A diagnosis of pulmonary and miliary tuberculosis was made. However, after one week's stay in the hospital, his temperature and pulse returned to normal, and during the following month he gained eighteen pounds. The signs in his chest now became confined to the left apex. In view of his unusual progress the diagnosis of miliary tuberculosis was doubted. His occupational history revealed that until three years before entrance to the hospital he had worked for twenty years polishing leather on a sandpaper wheel. There were numerous machines in the work room and no precautions were observed to clear the very dusty air. His sputum was examined by incineration and micropolarization through the kindness of Dr. H. Burke of Raybrook, N. Y., who found it laden with numerous doubly refractive mineral particles. expressed the opinion that this was consistent with silicosis, for he had found such numerous particles only in cases of silicosis. The patient subsequently died of a tuberculosis meningitis. Retinal tubercles were demonstrated on microscopic section. The pathological report was miliary tuberculosis with no silicosis. Ashing of the lung showed increased silica content, consistent with undue exposure to dust (more than 2 mgm. silica per gram dried tissue).

CASE 2. A male, aged fifty-four, entered the New York Hospital complaining of recurrent hemoptyses, dyspnea, and chest pain for one year. On physical examination there were rales and dullness over the upper third of the right chest anteriorly. He ran a low grade fever, but was robust and felt quite well. The chest x-ray disclosed enlarged hilms shadows, particularly on the right, and diffuse mottled discrete shadows throughout

both lung fields with a circumscribed density near the right apex. He gave a history of having worked for twenty-four years as a cutter and sizer of asbestos-containing paper box boards. The rooms were in a continuous cloud of dust. Examination of the dust revealed five per cent silica content as well as Sputum examination showed numerous doubly refractive mineral particles and no tubercle bacilli. The hemoptyses, we felt, were to be explained on the basis of infection or neoplasm, but we did not know whether we were dealing with one of these processes alone or an associated silicosis or asbestosis. A small node in the neck was subsequently removed and showed carcinoma. We are inclined to believe this does not explain the whole process, as the man is still alive (after two years) and certainly, from the x-ray standpoint, we cannot say there is no silicosis.

Case 3. A dish-washer, aged forty-six, entered Bellevue Hospital on the service of Drs. Miller and Amberson, because of cough and expectoration, associated with dyspnea for three months. There was some duliness and rales at the right base posteriorly. Chest x-ray revealed a homogenous shadow at the right base. His sputum contained no tubercle bacilli and lipiodol study revealed no abnormalities. Bronchoscopic examination disclosed a bleeding mass in the right main bronchus. Symptoms and disease progressed during the following four years. Discrete mottled shadows first appeared in the upper right lung field and the shadow at the right base cleared somewhat. Three years later extensive abnormal shadows were present throughout both lung fields, particularly on the right. A diagnosis of chronic pneumonia of unknown etiology was made. At no time was a diagnosis of silicosis entertained, because as far as could be determined, he had no history of exposure. Furthermore if there were silicosis it behaved very atypically having the lesion confined practically to the right base at the beginning, and then spreading to the left lung. Autopsy findings of Dr. J. W. Grethmann, however, were a typical far-advanced silicosis of both lungs, more in the right, associated with a small amount of tuberculosis. There was stenosis of the right middle lobe bronchus with bronchiectasis in this lobe. Chronic infection in this lung field probably accounted for the unusual localization. This case illustrates how necessary it is to have the history of dust exposure, for without it we are unable to even suggest a diagnosis.

A forty-five year old male entered New York Hospital complaining of slight cough and expectoration with dyspnea

for two years, and gave a history of having worked for many years repairing tires, using talc powder. It was difficult to obtain accurate details as to the possibility of silica exposure except that the rooms were filled with clouds of dust. Rales were present at both apices and a few tubercle bacilli were found in the sputum. Discrete and stringy shadows were disseminated throughout both lung fields with bilateral apical shadows. We learned from the positive sputum that tuberculosis was present. Sputum examined for mineral particles was negative. The patient has, however, kept fairly well for two years since the miliary shadows were first seen. The doubtful history of exposure together with the numerous discrete nodular shadows present in his lung, which are consistent with silicosis, makes this patient a problem. Is this tuberculosis alone of a chronic miliary form or is this tuberculosis with silicosis? The patient is still living a year later, and working.

Conclusions

The cases cited are indeed exceptional, but their existence must always be borne in mind. If occupational history is inadequate, and x-ray clinical and laboratory studies prove misleading, the diagnosis may present great difficulty. However, a comprehensive analysis of all possible data usually clears up the problem with reasonable certainty.

A most detailed occupational history of exposure from all aspects, including dust study, is essential. Admixture of dusts must be considered. X-rays, not only stereoscopic, but also of varying degrees of exposure are required to avoid, if possible, elimination of shadows because of emphysema. Sputum and urine as well as postmortem studies, both pathological and chemical, with incineration and spectral analysis may be necessary.

Impairment of function in silicosis does not necessarily run parallel with the anatomic changes of the lungs as evidenced in the roentgenogram. From the standpoint of compensation, the severity of disease should be judged from the functional disability. Roentgen and clinical laboratory evidence not infrequently aid in determining this impairment of function.

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SILICOSIS

Present Knowledge Summarized for the Practising Physician

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As indicated in the title, this article is conceived for, and directed at, the practising physician It has been common medical knowledge, for many generations, that prolonged occupation in certain dusty trades may result in peculiar changes in the lungs of workers so employed Since the turn of the century and particularly in the last decade, there has been an increasing flood of original contributions to our knowledge of the subject from the various special points of view of the many contributing investigators Engineers, chemists, physicists, and in the more strictly medical field, industrial hygienists, publie health officers, clinicians, physiologists, descriptive and experimental pathologists, roentgenologists, have all added their valuable findings to our sum of knowledge By and large, the publications on the subject have been in the nature of orig mal contributions from special fields of investigation, and our actual knowledge of the subject as a whole is in such a state of flux that few of the original axioms have withstood the influence of new data which are appearing year by year. This obviously accounts for the fact that there have been few attempts to epitomize the subject and the practising physician has been left to feel that the whole thing is a highly specialized field of medicine, quite outside his provmce-something reserved for the industrial physician and the medical expert on the witness stand

But the great wave of cases being tried for damages in our civil and compensation courts has made for a public consciousness as well as an increased professional consciousness of the problem. At present it is safe to say that many trial lawvers have at their command a much more comprehensive smattering of the available information on the subject than the average physician.

Etiology

The etiology of these so called "industrial fibroses" is implied in the definition The term pneumocomosis was coined to describe any condition of the lung produced by the long continued inhalation of dust. For many years it was assumed that the inhalation of any type of dust would produce fibrosis but modern research is indicating that this is true of only a limited number of dusts.

Kinds of Dust While the term pneumocomosis is not specific and includes all forms of pulmonny dust reactions, current usage gives preference to specific terms which refer to the particular causative dusts, e.g. "silicosis" (silica), "asbestosis" (asbestos), "anthracosis" (coal), "siderosis" (iron), etc. Of these there are only two, silicosis and asbestosis which are recognized as having climical significance, the others being of academic interest only

Our present knowledge indicates that, in general, the presence of silica, in some form, is required to cause the development of fibrous tissue in the lung in any significant amounts. This may be in the form of free silica (SiO2) eg, quartz, or in the form of silicates, e.g., asbestos, or the two in combination, eg, granite In other words, non silicious dusts are wholly or relatively insignificant in comparison with silicious dusts. The specific quality possessed by silica particles of stimulating the production of fibrous tissue is due to some chemical property rather than to the physical property of hardness and sharpness. This is shown by the fact that diamond dust, the hardest known natural substance is innocuous

Inasmuch as silica itself is of such widespread distribution and constitutes such a large component of most metal-bearing hard rocks and sands, besides being used widely and extensively in manufacturing and other industrial operations, silicosis is by far the most prevalent and most significant of the known industrial fibroses

Size and concentration The mere presence of silicous dust is not sufficient of itself to constitute a hazard The size of the particles and their concentration in the inspired air are also of primary

importance in setting up a pulmonary fibrosis. In general, the smaller the particles and the greater the concentration, the more hazardous the occupation be-Particles larger than ten micra in diameter are innocuous because they are not inhalable, but particles of smaller size are toxic in inverse proportion to As to concentration, the their size. standards of safety are set at ten million particles per cubic foot of inspired air for mixtures containing less than thirty per cent silica, and five million for higher concentrations. Both size and concentration are now subject to sufficiently accurate determination, by standard methods, for surveying the probable hazard existing with any industrial operation. Special apparatus for sampling atmospheric dust are available, which permit both measurement and counting of these particles.

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Length of exposure. In addition to the presence of a fine dust in high concentration, a definitely prolonged exposure on the part of any worker is required to produce the fibrous tissue proliferation under consideration. Just as the body defenses are able to withstand dust particles of low concentration for a long time, so are they able to cope with dangerously high concentrations for a short time

Before silicosis, or any other pneumoconiosis can develop, it is necessary that there be not only a definite hazard, but also prolonged exposure to that hazard. The length of time necessary to produce detectable and identifiable monary changes will vary from probably two years, in the worst possible conditions, to many years in others. length of time will depend, not only upon the fineness and concentration of the injurious dust, but also upon varying toxicities of the particular dust, inhibiting or accelerating substances mixed with the dust, and lastly upon the individual susceptibility of the workers themselves.

Coincidental modifying substances. Even among the various forms of pure silica there is considerable difference in their injurious properties, finely divided quartz being perhaps the most dangerous. When other dusts are present in mixture, even the most dangerous siliceous dusts may have their action greatly modified.

Each combination needs to be carefully studied by field surveys of the workers and animal experimentation before reliable conclusions can be reached. For example, silica particles in a concentration ten times greater than that considered safe, have been found to be rendered harmless when mixed with gypsum dust. Iron oxide not only delays the development of silicosis but retards its progress when once established.

Individual variation among workers. Tust as human beings vary widely in their physiological and pathological responses to other stimuli, so do they differ in their tendency to develop silicosis under identical conditions. Men working side by side, engaged in the same industrial operation, under exactly the same working conditions may display a difference of several years in the length of exposure necessary to produce significant pulmonary changes. Some of the factors responsible for this difference are doubtless general state of health and nutrition, susceptibility to intercurrent respiratory infections, certain variations in the minute anatomy, and the physiology of the respiratory system, etc. For example, there is evidence that mouth-breathers may be more susceptible than others.

Incidence and Distribution

Obviously such special forms of pneumoconiosis as asbestosis will be limited in distribution and incidence to the few industries dealing with the particular in-Therefore, they criminating material. come in for secondary consideration in a discussion of the general and broader problem. Silicosis, however, being by far the most prevalent, and of such widespread distribution and high incidence, becomes really the major point of our An understanding of it will pave the way for the special consideration of its corollary conditions should the occasion arise.

Silicosis is to be anticipated among the workers engaged in any operation in which the air contains a sufficient quantity of silicious dust. Its distribution is, therefore, nation-wide, but patchy. Its actual incidence is probably astounding—a fair estimate being that, at a minimum, several hundred thousand cases occur in

some demonstrable stage of development. A few of the many so-called hazardous occupations in this respect are: all mining operations involving hard rock, all manufacturing processes using finely divided silica, pulverizing plants, sandblasting, foundries, granite-cutting plants, etc.

Pathology

A very brief consideration of the common and typical pathological changes which occur in the lung is essential to an understanding of the roentgenograms and for the diagnosis. Here, also, the discussion will be limited to the commonest of all the pneumoconiosis, nodular silicosis. The various other forms, while important in themselves, require separate consideration and cannot be included in this very general article.

A certain number of the inspired dust particles are left deposited upon the walls of the pulmonary air sacs. There they are engulfed by wandering phagocytic cells which return into the alveolar walls and find their way to the lymph channels. Once in these channels they start their slow way toward the hilum, and to a much less extent, toward the pleural drainage, to rid the lung tissue of the particles. Strangely enough the preferred route for this migration is through the periarterial lymph vessels, rather than the perivenous lymphoids. At every place of lodgment in this return lymph stream, such as the tiny bits of lymphoid tissue at the bifurcation of pulmonary bronchioles, these dust-laden cells may become lodged, and local tissue reactions set up. This tissue response is at first the typical foreign body reaction, which, however, in the presence of silica, does not subside, but proceeds to the formation of excess connective tissue and results in a permanent proliferative lesion. This in turn results in deformity of the lymph channels themselves with partial occlusions, distentions, and a considerable degree of chronic perivascular inflammation along the course of the vessels involved. Undetained dust cells find their way into the tracheo-bronchial lymph nodes and set up a similar reaction there. At first these pathological changes are microscopic only, and cannot be detected either by the naked eye in the gross specimen, or in the roentgen-film of the patient. However, as the condition progresses, there appears a thickening, and a roughening of the vascular trunks, with occasional delicate nodules at the arterial bifurcations. This is recognizable both grossly and radiologically and may be called the stage of perivascular lymphatic infiltration. This stage, however, is not specific for silica. It is a type of reaction that may be the result of a host of irritative, infectious, or even innocuous agents, and is of no clinical significance.

From this stage there is a gradual progression into a stage in which the lymphatic drainage is actually interfered with and the dust cells establish foci in the parenchyma of the lung, followed by the development of a detectable, clear-cut fibrous nodule about each of the multitudinous foci of dust cells. This is called first degree nodulation. The nodules are just visible and recognizable, both in the gross and in the x-ray. They are clear-cut, discrete, and usually of uniform distribution throughout the lung fields, except at the extreme bases where they appear less numerous.

The next stage, that of second degree nodulation, includes all gradations of increasing size of the nodules as long as they remain individually discrete. This applies to all cases with discrete nodules larger than those typical of first degree nodulation up to six mm. in size. Incidentally, as the individual nodules increase in size, they tend to surround the branch of the pulmonary artery which they oppose and to constrict its lumen.

The final stage is that of coalescence of the individual nodules. Here some of the adjacent nodules have, by their own increase in size, become contiguous. By further growth of the fibrous tissue they coalesce and form great masses of fibrosis, obliterating, of course, any lung parenchyma which originally occupied this position.

As the pulmonary fibrosis proceeds there is a definite tendency toward the formation of areas of localized emphysema. These are chiefly at the bases which are quite generally emphysematous, but in addition there are frequently areas of bullous emphysema at the periphery of the lung, most common in the narrower margins.

There is no marked tendency toward adhesive pleuritis unless infection

supervenes.

The tracheo-bronchial lymph nodes, likewise, have increased in size by virtue of the progressive development of connective tissue within their substance.

Diagnosis

The diagnosis of silicosis on clinical data alone cannot be made. In the extremely far advanced cases, it may be suspected from the symptoms and physical signs, but an actual diagnosis is never justified without the confirmation of a definite history of exposure and the characteristic x-ray pattern.

From the practitioner's viewpoint it would be well to consider all silicosis cases as falling into two great classes—clinical or symptomatic silicosis, and preclinical or asymptomatic silicosis. There is a very reasonable doubt that purely nodular silicosis ever causes disability, or even becomes symptomatic. Some observers feel that the appearance of symptoms in nodular silicosis is prima facie evidence of superimposed infection.

The clinical or symptomatic cases are those of far advanced pulmonary fibrosis and represent the late stages of the con-The symptoms are those due to embarrassed physiology of the respiratory and circulatory systems, and may not appear until remarkably late. Having once appeared, they constitute a definite physical handicap and render the individual definitely and permanently disabled in proportion to their severity. Their onset is extremely insidious. Perhaps the very first clinical indication of silicosis is a gradual slowing down of the working efficiency of the individual. This may be first detected in the decreased earnings of the piece worker. Later there appears a slowly progressive shortness of breath, an irritative, unproductive cough, ease of fatigue, and rather frequently a vague, but troublesome "indigestion." If respiratory infections If respiratory infections supervene, the picture may be considerably complicated and this feature will be dealt with separately.

The physical signs are notoriously scanty and unreliable: a fixed barrel chest, with definitely limited expansion; usually hyperresonant percussion notes; diminished breath sounds, frequently with a prolonged expiratory phase; rales are usually few or absent. Briefly, the clinical picture closely

approximates that seen in emphysema, or even chronic asthmatic bronchitis. In fact, the usual presence of some degree of basal or peripheral emphysema may contribute to the physical findings. However, a helpful hint in differentiating pulmonary fibrosis from true emphysema is that in the latter the diaphragm, in its resting position, is near the point of full inspiration, while in the former it is near the point of full expiration. In other words, the purely emphysematous individual, from rest, can forcibly exhale more than he can forcibly inhale, while the silicotic can forcibly inhale more than he can forcibly exhale. Fluoroscopy, of course, is required for this demonstration. Helpful as this fact may be in many cases, it alone is not sufficient as yet to justify its being considered as pathognomonic. The symptom complex stated leads to the suspicion of silicosis; the diagnosis requires the confirmation of a typical x-ray pattern and a history of exposure.

Preclinical or asymptomatic silicosis exists in many individuals who do not exhibit symptoms. Being symptomless, the individual in this group is wholly unaware of his condition, and in ordinary circumstances remains undiagnosed and unsuspected except by accident. His silicosis is revealed only upon the unusual circumstance of receiving a chest x-ray for some incidental reason. Even then he may scoff at the whole idea of there being any menace to his future health in his present employment. Yet, he is potentially a disabled worker, if his hazard continues or his pulmonary changes progress.

In accord with the lack of symptoms, these cases present few if any physical signs. When any signs do occur, they are equivocal and are of no real value in either estimating the degree of fibrosis, or even in establishing the diagnosis. Therefore, in the preclinical stages, the diagnosis of silicosis depends solely and absolutely upon a history of significant exposure plus a characteristic pulmonary pattern in the

x-ray films.

X-ray. The pattern of the shadows cast in the x-ray film corresponds exactly to that of the pathological conditions which produce them, as is to be expected. In the stage of perivascular lymphatic infiltration there is an exaggeration of the normal linear markings, which represent the vascular tree. This is particularly noticeable in the finer ramifications, just within the range of visibility. Not only are they more prominent but they are more irregular in outline, with perhaps

a suggestion of beading. This also applies to the greater trunks, as well as the hilum shadows, which are decidedly more prominent, as an aggregate, but individually less sharply cut than in the normal.

In the stage of first degree nodulation we find minute and barely visible, discrete rounded nodular shadows added to

the foregoing picture

In the succeeding stages, there is the obvious and conspicuous increase in size of the nodular shadows, each remaining discrete and sharply outlined. As these increase in size there is a corresponding obliteration of the linear pattern of the first stage owing to the superimposition of the more conspicuous nodular shadows over the delicate fretwork of the perivascular infiltration.

The presence of conglomerate nodules is revealed on the film in an unmistakable

manner

Also, the partial emphysema at the bases is brought out by the darkening of the image cast by the more translucent lung. Even the peripheral bullae can sometimes be recognized in good stereo-

scopic films

A word regarding the x-ray technic itself is important The conspicuous shadows of advanced silicosis will show up in films taken in almost any common technic, in stereoscopic films or flat, front to back, back to front, lateral or oblique, moderately overexposed, moderately underexposed, slow or fast Such films will show the gross manifestations and will reveal the mere presence of some abnormality within the lung, but cannot be relied upon for accurate diag-Also, in most of the perivascular lymphatic infiltration cases and even in many of the first degree nodulation cases, the pattern will be lost unless the most carefully standardized and delicate technic is observed. This likewise holds true for many of the finer details of the more advanced cases, and no attempt should be made to evaluate the shadows except with perfect films

The author is not competent to prescribe such a standard technic, but it must conform to certain fundamentals. The films must be stereoscopic, that the observer can interpret the spacial relations and sort out any superimposed

shadows, the distance must be great enough (at least five feet) to avoid magnification and blurring by divergent rays, the time of exposure must be fast enough (not over 1/10 of a second) to arrest all intrathoracic motion, not only of the bronch, but of the heart and pulmonary vessels, the penetration must be just sufficient to pick up all the details and yet give a soft film, the focal spot must be small to secure sharp definition

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Even so, there are certain other conditions which present enough similarity in the films to require the constant attention of the roentgenologist in interpreting the films for differential diagnosis Some of these are mycotic infections of the lungs, miliary tuberculosis, miliary pulmalignant metastascs from growths, etc. The differentiation of these conditions, especially in the border line cases, should never be attempted except with the highest possible quality of films Even with the most perfect technic, and suspiciously characteristic shadows, the final diagnosis of silicosis should not be made without the history of prolonged

No one will gainsay the importance of diagnosing these cases when they do occur The great and far reaching motive for discovering and locating silicosis must always be that of identifying the conditions which cause it, and eradicating them in the interests of human welfare IIow ever, on the other side of the picture, great harm can, and does, result from hasty, ill considered, and therefore unjustified, diagnoses of silicosis This can not be too strongly emphasized. In the last few years, since the medical and mdustrial worlds have been investigating these problems, hundreds, and perhaps even thousands, of workmen have been incorrectly branded as having "silicosis," or "industrial fibrosis" This has inflicted a grave injustice on both the workmen and their employers Every pospulmonary affliction which capable of altering the x-ray shadows, and many which are not, has been labeled "silicosis" by some uninformed or overzealous diagnostician Ordinary tuberculosis, bronchiectasis, unresolved pneumonias, chronic bronchitis, asthma, pure emphysema, chronic passive conges tion, and many other conditions have

been so misconstrued. Along with the real, bona fide cases of industrial fibrosis, the calendars of our civil and compensation courts are clogged with suits by claimants whose cause for action is based on a silicosis which does not exist. Careful and competent diagnosis would have saved this great burden on our social economic structure.

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The Progress of Silicosis and the Prognosis

In a small number of exceptional cases of so-called "rapid silicosis" the pulmonary fibrosis may develop to the point of causing disability within a few months—eighteen to twenty-four. These occur only in those individuals who are exposed to the most extreme hazards, such as could exist only in the worst possible working conditions. Even then, the possibility of a coexisting infection must be most thoroughly kept in mind.

Ordinary silicosis, on the other hand, arising in ordinarily dusty working conditions, develops very slowly indeed. Its onset is very insidious, requiring several years—usually a minimum of from three to five before it becomes demonstrable by x-ray. Its progress is usually equally slow, requiring from several to many years more before symptoms begin to appear, if ever. Even then after the first symptoms become evident, several additional years may elapse before the victim becomes disabled. Thus it happens that in any large group of preclinical or asymptomatic silicotic individuals the vast majority will have died of other causes, such as unrelated intercurrent diseases, accidents, etc., long before disability can oc-Others will change occupation and thus automatically remove themselves from the hazard before enough fibrosis has developed to form, of itself, a menace to health and earning power. However, it is known that when a certain stage has been reached, the pulmonary fibrosis continues to progress and proceeds to the more advanced stages even though no further silica is inhaled. Unfortunately we do not know at present just when this self-progressive stage begins, whether it is the same for all individuals exposed to the same dust, and whether it varies for different forms of silica. We do know, however, that it does not occur until some time after parenchymatous nodules have appeared in large numbers.

On the whole these men tolerate a remarkably large amount of dust fibrosis without incapacity and even without symptoms. Also, there is very wide variation in the individuals concerned as to the amount of silicosis required to cause symptoms.

There is no conclusive evidence at present that silicosis, of itself, is fatal. A few of the cases which remain uncomplicated by pulmonary infections may ultimately die of cardiac decompensation, due presumably to the severe handicap placed on the circulatory system. However, these individuals are in the later decades of life, and degenerative myocardial changes may play a part in their demise. But by far the greatest single cause of death among such individuals is the complicating pulmonary infection, tuberculosis.

Complications

The mitigating influence of other substances associated with the silica in the dust itself has already been mentioned.

Theoretically the occurrence of this fibrosis in the lung, especially with its disturbance of the lymphatic drainage, would seem to render the silicotic individual especially susceptible to acute respiratory infections, such as pneumonia, and it would further seem that it should interfere with recovery and make for an unfavorable prognosis. Absolute proof of this, however, is lacking at present, although some studies tend to support the theory.

But, it is well-established that silicosis increases the predisposition to pulmonary tuberculosis, and the latter disease now constitutes the one important complica-If it were not for the additional menace of the complicating tuberculosis, silicosis itself would be an insignificant and almost negligible disease. combination has given rise to the term silico-tuberculosis. It is a well-established fact that the incidence of tuberculosis is much higher in a group of silicotic workmen than in a similar group of the same age distribution and of the same economic status. Among these silico-tuberculous persons there is the occasional case of extremely rapid and

fulminating type of "phthisis florida" in which the disease runs to its fatal termination within a few months, doubtful, however, if these acute cases occur in any higher percentage than that seen in uncomplicated tuberculosis. The very fact that these cases are so spectacular has led to their having been given disproportionate attention.

The usual course of the complicating tuberculosis is toward chronicity with a slow progression of the disease. very chronic course leads to delayed diagnosis, and may help to keep up the incidence of the disease by affording opportunity for one workman to infect his fellows by the constant sowing of bacilli on already fertile soil. A prompt diagnosis is complicated by the fact that the bacilli are frequently difficult to demonstrate in the sputum by direct smear and ordinary technic. Sometimes they are found only after repeated examinations of concentrated specimens or animal inoculations. The explanation for this fact that sputum, which is found negative upon examination, may be positive upon animal inoculation, is not yet clear. It is possible that the association of the bacilli with silica in the tissues alters their characteristic staining reaction in some way.

The ultimate prognosis of silicotuberculosis has formerly been considered very grave indeed. Indeed it is, if either, or both, of the conditions have progressed to a far advanced stage before the victim stops work. Evidence is accumulating, however, to show that in the earlier stages of silicosis, the tuberculosis may respond quite favorably to the ordinary treatment rendered uncomplicated tuberculosis. Hence, the obvious desirability of diagnosing both conditions as early as possible and instituting the proper treatment for the tuberculosis when it coexists.

Here again the x-ray is immeasurably The first sign of superimposed infection is that of the blending together of the nodular shadows into a localized blurry patch or patches when the individual nodules are not yet large enough to fuse by direct contiguity. This may or may not be associated, at first, with a blurring of the margins of the nodular shadows, which should be quite sharp and clear-cut in the noninfectious case. Intrapulmonary cavities, of course, speak for themselves. Any or all these changes in the lung shadows spell infection, and as such, demand the presumption that this infection is tuberculosis, unless proven otherwise by bacteriology.

Prevention

Silicosis is a preventable disease. Its complete eradication can be accomplished only by the cooperation of industrial engineering and medical research. When the time arrives that no workman is subjected to an injurious dust, in sufficient concentration, or for a sufficiently prolonged time, to cause this pulmonary change, silicosis will have ceased to be a reality. The generation following this millennium will know of it only as an interesting phase of industrial medical history. The progress made in the last few years has already shown that this millennium is not impossible to achieve, in fact it is not impracticable, and may even be accomplished in this country within the current generation. Industry, itself, is quick to see the economic importance of preserving the health of its employecs.

In the work toward prevention, engineering affords the direct means of reducing or eliminating the hazard. Improved systems of ventilation, dust exhaust systems which remove the particles from the scene of their production before they can get into the air to be inspired, dust traps which catch the particles, etc., all operate to keep the inspired air either dust-free or below the danger level. The efficacy of all these devices is subject to control by dust In those operations in which such ventilating, dust-catching, and dustremoving apparatus is impracticable, the individual workmen can receive adequate protection by wearing especially constructed respirators. If, for some most exceptional operation, the wearing of a respirator is impossible, no workman should be allowed to spend longer than the briefest term of employment at this particular job.

The medical side of prevention must take the form of determining which dusts, or combination of dusts, are injurious, and of warning both employer and

employee of this fact. The medical profession must be alert to discover silicosis and its allied conditions in the earliest possible stages, for such early recognition will enable the industry involved to eliminate its hazard before any real harm has been done.

Several of the more important industrial companies have seen the light and are making a great stride forward by a careful inventory of the situation in their own plants where men are employed in dusty trades. Such surveys, to be complete and of real value, include a determination of the hazard by dust counts that reveal the size and concentration of its particles, as well as chemical analysis; a determination of the toxicity of the specific dust by animal experiments; an estimation of the rate of pulmonary change in the lungs of workmen exposed, by physical examination and x-rays of all employees, including serial x-rays at regular intervals. The x-ray procedure will also give information as to the prevalence of tuberculosis, as well as give the employer a fair idea as to the probabilities of future disabilities, due to pulmonary fibroses among his employees.

Public Health Aspect

There is a definite public health aspect to this problem which falls directly into the practitioner's province, as well as the economic and sociological aspect. The economic phase is obvious in the loss to the employee of wages owing to his disability, and the loss to industry and state in compensation grants. The sociological phase lies chiefly in the problems that

arise in connection with, and center about, any unemployed, and unemployable, chronic invalid.

The public health aspect has to do not only with preventing the disability of the potentially silicotic workman himself, but with the possibility of his becoming a victim of tuberculosis and an unsuspected focus for the dissemination of that disease.

Role of the Practising Physician

From this very brief summary of the silicosis situation, it must be obvious to the practising physician that it is his problem too. Silicosis exists completely unsuspected in many localities. it is in many of the smaller centers, where there are no large industrial concerns, that it is most likely to go unsuspected and undetected. The private physician has an opportunity to forestall many a case of disability if he becomes alert in anticipating the presence of early pulmonary reactions in his workmen Frequently the family doctor patients. has much more influence in securing the necessary cooperation for x-rays, etc., than the company doctor whose motives might be suspected by an unintelligent employee.

Likewise, and equally important, the practitioner, with his levelheadedness, can do much to restrain the uncontrolled enthusiast from snap diagnoses, and prevent the grave injustice arising from such

misbranding.

Lastly, there is the public health phase—and the private physician is, after all, the principal guardian of the public health.

MEDICAL LIBRARY ASSOCIATION MEETING

The Thirty-eighth Annual Meeting of the Medical Library Association will be held in St. Paul, Minnesota, June 22 and 23, and in Rochester, Minnesota, June 24. Sessions will be held at the Ramsey County Medical Society, New Lowry Medical Arts Building, St. Paul, and at the Mayo Clinic, Rochester.

The program will include addresses, discussions, and demonstrations on library procedure, medical history, and literature.

This Association consists of about 175 of the medical libraries of this country and Canada, together with their librarians and

a group of supporting members who are physicians interested in the advancement of medical libraries.

The officers of the Association are as follows: President, Dr. W. W. Francis, Montreal; Vice-President, Dr. A. H. Sanford, Rochester, Minn.; Secretary, Miss Janet Doe, New York; Treasurer, Miss Mary Louise Marshall, New Orleans; Chairman of Executive Committee, Miss Mariorie J. Darrach, Detroit.

All interested in the development of medical libraries and a wider knowledge of medical literature are invited to attend.

PETROUS PYRAMID SUPPURATION Histopathology

JOSEPH G. DRUSS, M.D., New York City.

From the Otologic Service of Dr. Friesner and the Department of Laboratories of the Mount Singi Hospital

Within the past five years, a large number of publications dealing with suppuration of the petrous pyramid have appeared in the literature. Although many phases of this subject were considered, relatively few reports dealt with the histopathology of this condition. Between the years 1928-34 we have sectioned serially the temporal bones of twenty-four cases of suppuration of the petrous pyramid. Of these, twenty included sections up to the extreme tip of the apex. Certain data were obtained which we feel are of great value in establishing a clearer conception of the pathology and in forming the basis for a clearer understanding of the treatment of this condition. Limited time prevents a detailed discussion of all our findings. Only a few of the more significant ones will therefore be given at this time.

Suppuration in the petrous pyramid was found histologically in the routine examination of our material in a large number of cases who died of intracranial complications but who showed no evidence of such condition clinically. It may be present without any characteristic signs or symptoms referable to the petrosa. Also it must be borne in mind that in the early stages of an acute middle ear suppuration there is not only an associinvolvement of the pneumatic ated spaces of the mastoid, but also of those in the petrous pyramid. The inflammatory changes vary from a thickening and infiltration of the mucosa lining these cells to an extravasation of pus.

It is of importance to emphasize the fact that not in all cases of petrositis does the lesion extend to the apex, nor are the symptoms dependent upon such extension. In some cases the inflammatory changes are limited chiefly to the perilabyrinthine structures within the petrosa.

We have stated in previous communications^{1,2} that as a rule the greater the degree of pneumatization in the temporal bone the greater is the facility with which infection spreads through it. Bearing this in mind we have attempted to classify our twenty-four cases according to the degree of pneumatization in the three main structures of the temporal bonemastoid process, petrous pyramid, and apex. (Fig. 1.) Of the twenty-four cases of petrositis, the mastoid process was pneumatic in twelve (50%), mixed in nine (371/2%), and diploetic in three (121/2%). The petrous pyramid was pneumatic in four cases (162/3%), mixed in eighteen (75%), and diploetic in two (81/3%). Of the twenty cases in which the apex was sectioned, it was pneumatic in one (5%), mixed in six (30%), and diploetic in thirteen (65%). (Table I). The above figures indicate that pneumatization takes place more frequently in the mastoid than in the petrous pyramid and apex. Occasionally, however, pneumatization in the petrous pyramid is farther advanced than in the mastoid. In our own series of cases we found the presence of some pneumatic structure (i.e. the mixed type) more frequently in the petrosa than in the mastoid. This may be due to the fact that the



Fig. 1. Gross photograph of the temporal bone divided into three sections: (A) The apex from the extreme tip to the inner lip of the internal auditory meatus. (B) Petrosa from the internal auditory meatus to the external semicipal semicipal canal. (C) Mastoid In the majority of our cases of suppuration of the petrous pyramid the greatest expression of the disease was noted in the mid-portion (B). Note the 6th nerve and the petrosphenoidal ligament at the extreme tip of the apex.

Read at the Annual Meeting of the Medical Society of the State of New York, Albany, May 15, 1935



Fig. 2. Photomicrograph: Vertical section through the vestibule showing suppurative process at the superior posterior margin of the petrosa communicating with the dura and producing an extradural abscess. Note the fibrosis and new bone formation in the process of repair. (A) Suppurative process. (D) Dura thickened and inflamed. (F) Facial nerve. (S.S.C) Superior semicircular canal. (St) Stapes. (U) Utrick. (V) Vestibule. The infectious process spread from the antrum along the superior posterior perilabyrinthine structures.

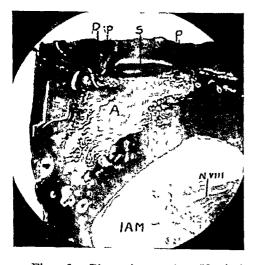


Fig. 3. Photomicrograph: Vertical section through the internal auditory meatus (same case as Figure 2 but section taken more medially) showing the extension of the lesion along the superior posterior margin of the petrosa. The pathologic changes are quite similar to those in Fig. 2. Note the sequestrum of cortex of middle fossa and multiple perforations. (A) Suppurative process. (D) Inflamed dura. (I.A.M) Internal auditory meatus (N) Eighth nerve. (P) Perforation. (S) Sequestrum.

process of pneumatization which is similar for both the petrosa and the mastoid may continue in the former after it has terminated in the latter.

We are cognizant of the fact that no final conclusions can be drawn from so small a series of cases. However, since the above tabulations were made from a histologic study in serial sections the findings are of definite significance. Here, the factor of personal interpretation plays a relatively small role and chances of error are diminished. The results of the various authors who have been interested in this phase of the subject were based mainly on observations made on the gross

temporal bone.

In the majority of cases, the infection spreads from the tympanum and antrum along the perilabyrinthine cells, viz: supralabyrinthine, post labyrinthine, anterior labyrinthine, that is, along the eustachian tube, and infralabyrinthine. Since these groups of cells communicate with each other, no sharp line of demarcation can be made between them. It must be borne in mind that as the infection spreads through the petrosa, the marrow spaces are also involved so that an osteitis in the strict sense of the term is not produced, but the picture is rather that of a combined osteitis and osteomylitis.

The exact pathway of infection can not always be determined even by histologic study since the perilabyrinthine groups

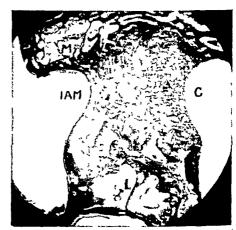


Fig. 4. Microphotograph: Vertical section through the apex (same case as last two figures) showing little or no inflammatory changes within. (C) Carotid canal. (I.A.M) Internal auditory meatus (inner lip). (M) Marrow spaces.

of cells have no definite lines of demarcation and the infection may extend along more than one pathway Where more than one route was involved, we decided upon the one which showed the most marked inflammatory changes

In nuncteen of the twenty four cases the infection spread from the tympanum and antrum along the superior and posperilaby rintline structures terior fourteen of the twenty-four cases this route of extension was the predominint one The infralaby finthing route was predominant in two cases. In one case the fossa subarcuata was the main route. In three cases the extension took place along the peritubal cells (anterior labyrinthine) In two cases the infection extended along the carotid canal. In two cases the route could not be determined with accuracy (Table II) From the above figures it appears that the superior posterior route is the most frequent. Also the lesion was the most manifest at the superior posterior margin of the petrosa, between the superior semicircular canal and internal auditory mentus (Figs 2 and 3) The suppurative process in the petrous pyramid frequently extends to the apex but here the pathologic changes are usually not so marked as in the lateral por-Thus in the twenty apices sectioned the findings were relatively normal in five (Fig 4), there were slight changes

TABLE I -PAGUMATIZATION OF TEMPORAL BONF Pneumatic
Mastoid 12 (50%)
Petrous Pyramid 4 (16%)
Anex 1 (5%) Mixed Diploetic 9 (3714%) 3 (1214%) 18 (75%) 2 (814%) 6 (30%) 13 (65%)

TABLE II - PATHWAYS OF INFECTION Supralabyrinthine Route I redominant in 14 Cases Infralabyrinthine Route Predominant in 2 Cases Fossa Subarcusta Route I redominant in 1 Cases Anterior Labyrinthine Route Predominant in 3 Cases (Pertitual) Along the Carottd Canal in 2 Cases Undetermined in 2 Cases

in four, and in only three was the inflammatory process of greater severity in the apex than in the remainder of the petrosa These findings bear out our contention that the lesion need not always extend into the apex nor are symptoms dependent upon this circumstance. The suppurative process frequently breaks through the cortex along the middle or posterior fossa at a considerable distance from the anex produces an extradural abscess (See Figs 2 and 3) In eleven of the twenty-four cases studied there was evidence of an extradural abscess varying in size from a small microscopic lesion to a frank extradural accumulation of pus The dura of the middle fossa was chiefly involved in seven cases, that of the posterior fossa in four cases. Multiple perforation of the cortex of the middle or posterior fossa or both were also noted

Summary and Conclusions

1 Suppuration of the petrous pyramid may be present in the absence of physical signs or symptoms

2 In the majority of cases of suppuration of the petrous pyramid (19 of 24) the infection spread from the tympanum and antrum along the superior posterior perilabyrintline structures. It was the predominant pathway in fourteen of the twenty-four cases

3 Not all lesions in the petrous pyramid extend into the anex

4 In the majority of our cases, the greatest expression of the disease process was most manifest in the petrous pyramid between the superior semicircular canal and the internal auditory meatus

1235 PARK AVE

Laryngoscope June 1931

References

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Discussion

12 342 1930 Druss ĬG

DR HARRY ROSENWASSER, New York City-Suppuration of the petrous pyramid is as a rule associated with a well defined nevertheless, symptomatology, but clinical and pathologic material definitely indicates that there are no signs and symp toms that are invariably pathognomonic of this condition. The literature as well as our own clinical experience, indicates that suppuration in the petrous pyramid has a marked tendency to drain and heal spontaneously We have observed many instances of petrositis presenting pain in or about the cye profuse otorrhea involvement of the sixth nerve, fever, and corroborative roent genographic findings which recovered following invringotomy or simple mastoidec tomy

The material presented by Dr Druss is of great significance not only from the histopathologic standpoint, but also because the knowledge gained has been translated directly into terms of effective therapy. The material demonstrates among other things that: (1) The posterior superior portion of the petrous pyramid is the site of maximal involvement in a large percentage of the cases: (2) There is a marked tendency for spontaneous healing to occur, which is at times concomitant with extension of infection into the depths of the pyramid: (3) That the lateral portion of the pyramid is frequently involved more extensively than the apex.

Time does not permit discussion of the many practical applications of these facts, therefore we wish to emphasize but one fact, namely, that the surgical treatment of petrositis should be directed towards drainage of those areas which the pathologic material indicates are most frequently and extensively involved. The two following cases illustrate how our method of treating petrosal suppuration has changed in recent

years.

CASE I. R. W., male, aged six, was admitted to the service of Dr. I. Friesner complaining of repeated colds, intermittent pain in the left ear, headaches, and a temperature which varied between 100-102° F. for three weeks. On admission, with temperature of 105.6° F., the patient vomited three times and complained of

very severe pain in the left cye.

The right ear was normal. The left ear drum was full, no landmarks were visible, and there was a pulsating discharge issuing from an anteroinferior perforation. There was no canal wall change and the mastoid was tender. There was a rigid neck, a positive Kernig sign, and a positive Brudzinski. The deep reflexes were hyperactive. Lumbar puncture was performed, the spinal fluid being under increased pressure and containing 2500 cells with ninety-six per cent polymorphonuclears. No organisms were

seen on smear.

A diagnosis of otitic meningitis was made, and the patient was immediately operated upon. Complete simple mastoidectomy was performed. Thruout the mastoid, small scattered abscesses were noted, especially under the cortex and in the initial groove. The middle fossa and sinus plate were purposefully removed in order to inspect the dura and lateral sinus. These structures appeared normal. With a brain retractor we attempted to elevate the dura from the floor of the middle fossa but because the posterior buttress had not been removed, the exploration was unsatisfactory.

The neck rigidity and the Kernig sign became more marked. There were 3000 cells with seventy per cent polymorphonuclears in the spinal fluid. Three days later the neurological examination was negative. One week after operation all reports of bacteriologic cultures of the spinal fluid, taken following the operation, were negative. The patient did well for two weeks, was seemingly on the road to recovery when, suddenly on the twenty-first postoperative day, he vomited, his temperature rose to 104° F. and

he developed drowsiness, a rigid neck, and bilateral Kernig signs. Spinal puncture revealed cloudy fluid, under markedly increased pressure with 4600 cells; ninety-nine per cent polymorphonuclears and organisms were noted on smear. The patient lapsed into coma and died twenty-three days after his original operation of a streptococcus hemolyticus meningitis.

Histologic examination of the petrous pyramid revealed extensive suppuration with the most manifest disease in the posterior portion of the pyramid, and with an extradural abscess of the middle fossa, and a terminal bacterial meningitis.

Comment: If we had this case to treat now, in the light of our present understanding, our method of treatment would be different. We would explore the mastoid exenterating all cellular structure, searching everywhere for leads, particularly in the solid angle where according to our histologic material, infections very frequently spread into the pyramid. Not finding any evidence of an extradural abscess or perisinus abscess, or badly diseased mastoid, we now believe it is not enough to stop at this point as we did in this case four years ago. We would proceed with an extensive decompression operation, which we have adopted and which, but for few minor modifications, is similar to that described by Eagleton. This procedure allows for adequate exploration of the middle and posterior fossa, at the same time conserving the middle ear. We have not found it necessary to perform radical mastoidectomy in our acute cases.

Case II. E. B., female, aged six, was admitted to the service of Dr. I. Friesner with a four week history of bilateral acute suppurative otitis media following an infection which simulated scarlet fever. The left car stopped discharging at the end of two weeks, but the right ear was still discharging on admission. Five days prior to admission (the 23rd day of the otitis) the patient complained of severe frontal headache and diplopia. Two days later she vomited twice. On admission, with a temperature of 99° F., she vomited again, and held her hand over the right eye because of the intense pain and headache.

The left ear was normal. The right drum was full, no landmarks were visible, and there was a herniation of the superior portion of the drum. There was no canal wall change. There was moderate tenderness over the mastoid antrum. The patient could hear a soft whisper. There was a complete right sixth nerve paralysis, bilateral ankle clonus while the remainder of the neurological examination was negative.

Immediate exploration was decided upon and was carried out by my colleague, Dr. Rosen, who first did a complete simple mastoidectomy. Pus was found immediately on removing the cortex. The mastoid proper, which was pneumatic, was the site of moderate destruction and softening. In the routine manner, following all

leads no matter how minute, to the limit, a small granuloma was noted just in front of the superior semicircular canal. This was curetted and pus issuing from the depths of the pyramid medial to the granuloma could be seen. The dura was lifted up after performing an extensive temporal decompression, and a large extradural abscess with a defect in the bone of the superior surface of the petrous pyramid was exposed, curetted, and drained. A large piece of rubber dam was placed between the dura and the bone focus.

The patient's headache and pain in the eye which had been excruciating, disappeared after operation. She was alert and took food readily. Eight days after operation the sixth nerve paralysis had disappeared entirely. On the forty-seventh postoperative day, the drains were removed and the child was discharged well.

Comment: This case illustrates our present method of treating suppuration in the petrous pyramid especially when the process no longer is confined to the pyramid proper.

Conclusion

In the treatment of suppuration of the petrous pyramid with signs of a sympathetic meningitis, our clinical experience and our histopathologic studies indicate that the decompression type of operation is the one of choice and should be carried out, provided, in the opinion of the operator, there is not sufficient disease present during the performance of the complete simple mastoidectomy to account for the clinical picture. An epidural abscess over the mastoid tegmen, a perisinus abscess, a very extensively diseased mastoid or an undrained small epidural abscess in the root of the zygoma as reported by Schambaugh, are some of the findings which we consider adequate to explain the clinical picture. Obviously in the final analysis, the judgment of the operator is most important.

IT'S BEEN JUST GREAT FOR DAFOE

Dr. Allan Roy Dafoe admits that he has "learned a great deal regarding infant care" while attending the Dionne quintuplets—two years old on May 28. Regiments of volunteer advisers have kindly deluged him with instructions on what to do at every turn. In a paper read before the Ontario Medical Association and printed in the Canadian Medical Association Journal he gives us a delicious account of it.

His education, he says, has been augmented through the medium of an international correspondence course in Medicine, Pædiatrics, Bacteriology, and Therapeutics! My preceptors in this course have been varied, and included Christian Science followers, astrologers, chiropractors, veterinary surgeons, nurses, fathers, mothers, and maiden ladies. Many superstitious beliefs and ancient ideas regarding medicine and disease were passed along to me for my help.

Letters containing advice and offers of help were received from Great Britain, India, Germany, France, Central America, Mexico, Australia, Philippine Islands, and from all over North America. I am quite sure that every milk preparation either "in" or "off" the market was mentioned in some of the letters. Goats and prize cows were offered to provide the necessary milk for the babies, and wet nurses made application for dairy appointments.

It was suggested that a healthy lactating

Yorkshire sow would solve our feeding problems. Her milk could either be obtained by pumping, or else preparing a place in the house whereby the babies could be directly suckled. It was intimated that the sow could be trained to adapt herself to this maternal duty. The reported onset of intestinal toxenia produced an avalanche of letters, all of which contained suggested measures of treatment. Waternelon juice, infusions of blackberry root, horsetail plant, sassafras, and knot weed were said to have produced spectacular results in similar cases.

Whiskey was a common ingredient of many suggested remedics, and was to be used both internally and externally. The use of spirits, however, produced several letters of criticism for starting the children at such a tender age on a downward path. Sheep's dung tea, sweetened and warmed, was offered as a cure for "The Blue Spells." Placental blood in warm water was another secret imparted to me, for use in saving the babies.

Of course, the usual letters containing messages from the stars, dreams of kidnapping, and warnings against poisoned food were plentiful. A beauty specialist, in her own words, "a rather noted one," advised the use of her marvellous cream to remove the wrinkles from the premature babies.

County medical societies are strongly advised by their state journal in Indiana to begin purging the state legislature of enemies in the primaries. "Lick 'em in the Primaries," is the crisp title of its editorial.

"We doctors," observes the editor, "do a lot of talking about what legislators do after they once get into operation in the legislatures. The time to clean house is in the primaries, not in the annual elections."

TREATMENT OF VINCENT'S ANGINA WITH ACETARSONE

CYRUS H. MAXWELL, JR., M.S., M.D., Auburn

Introduction

The widespread belief that the spirochete and fusiform bacillus of Plaut-Vincent are etiologically related to certain types of stomatitis and angina has led to the use of arsenicals in their treatment.

In this condition, Rechford and Baker¹ (1920) reported that the local application of ten per cent arsphenamine in glycerin was superior to any of the following: tincture of iodine, two per cent chromic acid, colloidal silver, flavine, powdered methylene blue; and a mixture of wine of ipecac ½ ounce, glycerin one ounce, and Fowler's solution one ounce.

Morgan² (1923) wrote of the use of intravenous neoarsphenamine. Treatment with Bowman's solution (solution potassium arsenite, twelve c.c.; wine of ipecac, twelve c.c.; glycerin, eight c.c.) was found to give only temporary relief. To eight cases, neoarsphenamine was given intravenously and Bowman's solution applied locally several times a day. The improvement was marked in two to four days; and the patient regarded as cured in 53/4 days. Seventeen cases were treated with neoarsphenamine only. Two of the cases were given two injections each and the remainder only one. Improvement was marked in $2\frac{1}{2}$ days in the average case, and cure was effected in 53% days. No recurrences were reported.

Barenburg and Bloomberg³ (1924) reported the treatment with intramuscular sulpharsphenamine of forty-two cases of Vincent's angina and stomatitis in children. Twenty-seven cases of stomatitis were treated with one to three doses of 0.1 or 0.2 gm. intramuscularly. Some received, in addition, local treatment with sulpharsphenamine. The cases receiving only the intramuscular treatments healed in seven days, while those receiving local treatment, in addition, were healed in five days.

Fifteen cases of angina were treated with one or two similar injections of this drug; seven of them received, in addition, local applications three times a day with sulpharsphenamine, and recovered in four days, as compared to 6½

days for the eight who received only injections. A high-vitamin diet was used as well.

Harris⁴ (1932) reported the use of sulpharsphenamine in an epidemic of Vincent's angina. Four hundred cases were treated by three weekly intravenous injections of 0.1 to 0.6 gm., depending on age. Generally the patients were improved within twenty-four hours and clinically cured within forty-eight hours. There were relapses unless three doses were given. In a few cases sulpharsphenamine in glycerin also was used locally. He reported one death in a thirty-eight year-old married woman.

In 1933 Harris reported⁵ three cases of arsenical dermatitis, one case of shock and collapse, and one nitritoid crisis from the use of sulpharsphenamine in Vincent's angina. He recommended that sodium thiosulphate be available for the treatment of these reactions.

In 1921 a purified form of acetarsone⁶ was introduced for the treatment of spirochetal infections. Couvy⁷ (1924) enthusiastically reported the favorable treatment of fifteen cases of angina and ulceromembranous stomatitis associated with fuso-spirochetal infections. drug was applied locally; a tablet of 0.25 gm. was triturated with a few cubic centimeters of water, or better, glycerin and applied to the previously cleaned lesion, three or four times daily. As an accessory measure, the mouth was washed with a dilute solution of acetarsone (.25 gm. to 100 gm. of water) or hydrogen peroxide one-third strength. stated:

The patient perceives almost immediate relief, the improvement is already manifest in twelve hours. At the end of twenty-four hours the lesions have lost their sanious appearance, the exudates have disappeared, and the breath is no longer fetid. The microscopical examination of the smear, taken at this time, showed nothing more than very rare spirochetes and fusiform bacilli. The cure is obtained most often in forty-eight hours. Never in the observed cases did the treatment have to be prolonged beyond three days.

Hutter⁸ (1927) reported the treatment of nine cases of Vincent's angina with acetarsone. The dose varied from 2 tablets (0.5 gm.) in one case in one day, to seventeen tablets (4.25 gm.) in 11 days in another case. In one case, he used four tablets locally, and three tablets by mouth in one day—a total dosage of 1.75 gm. He recommended a paste of acetarsone locally along with the internal medication. An "indifferent" mouthwash was used in addition. The spirochetes disappeared in twenty-four to forty-eight hours. One case of diarrhea was the only complication reported. Hutter reported a case that had persisted two weeks and then cleared quickly with acetarsone. In conclusion, he wrote:

We have in acetarsone a means which makes possible simple and very effective control of Vincent's angina, and opens up the possibility of a very therapeutic adjuvant in cases of diseases of the buccal cavity due to other spirochetal infections.

Rosenbaum (1931) reported[®] the treatment of eight cases of this disease with acetarsone. The ages were from seventeen months to eight years, and the dose of acetarsone was ½ tablet (0.0625 gm.) daily. The temperature fell to normal in twenty-four hours and there was relief from pain within twenty-four hours, when food was eagerly taken. The spirochetes decreased rapidly in all cases and disappeared in some. The fusiform bacilli persisted. In his discussion, he recommended that:

Local treatment, if given, should be most careful, as if not carefully done, it can do more harm than good. Moreover, it does not appear necessary. It would seem, however, that where possible, bland and cleansing mouth washes, as diluted hydrogen peroxide, sodium perhorate solution, and so on, might well be used.

He treated no adults but suggested that it might be successfully used in doses of 1½ tablets (0.37 gm.) daily.

Report of Cases

Our interest in the use of acetarsone in the treatment of Vincent's infection originated in a review of the literature concerning the use of the drug in congenital syphilis. The failure of two cases treated by arsphenamine locally to improve satisfactorily caused us to search

for a more effective drug. The high incidence of Vincent's infection in this locality afforded a further stimulus to our investigation.

All cases included in this series were clinically and bacteriologically Vincent's infection of the tonsils, gums, or pharynx. There was a definite membrane, marked inflammation, or edema with bleeding on slight pressure. Unless spiral and fusiform bacilli were abundant in smears, the case was not included in our study.

Fifteen cases were treated with ten per cent arsphenamine in glycerin applied locally once daily. A mouth wash and gargle every three hours with sodium perborate was employed. Thirteen cases responded quite satisfactorily with clinical improvement in forty-eight to seventy-two hours. However, two cases became progressively worse during treatment. One was a nine-year-old boy with severe infection of the gums, showing marked inflammation with edema, and bleeding upon the slightest pressure. The mouth could only be opened sufficiently to admit a glass tube for feeding.

The marked cervical adenitis suggested the "bull neck" of diphtheria. The temperature varied from 102° to 103° F, for a week. Improvement started at this time, the temperature fell gradually to normal, and the gums gradually returned to normal. There was no recurrence.

The second child, also nine years old, developed a heavy membrane on both tonsils, the fauces became purple; his condition was considered critical; the temperature remained at 104° F. for two days, and then fell gradually to normal over a period of four days. He was very toxic and drowsy for a week after the onset. Improvement was steady but slow, and there was no recurrence. Both of these cases received treatment from the onset, but became worse before improvement occurred.

A group of twenty-eight cases was treated with arsphenamine and glycerin, and sodium perborate as above, but, in addition, received acetarsone by mouth in the dosage shown in the accompanying table. The doses may seem large and may not be justified since previous experience has shown the drug is without its dangers.¹⁰ However, smaller doses used at the start did not give as rapid

results. The disease in its acute form may be very distressing and requires immediate attention. Hence, we have used large doses as above for three days; have given a rest period of three days to allow for elimination of the drug, and have then repeated the three-day treatment as above.

In all these cases the temperature, if elevated, returned to normal within thirty-six hours, and generally within twenty-four hours. There was symptomatic improvement in a like period of time and a gradual steady change to normal in the appearance of the gums and fauces, the patient being able to eat without difficulty in four or five days after treatment was instituted.

A third group of thirty-six cases was treated with acetarsone and sodium perborate as above, but instead of arsphenamine locally, one of the following was used: Weak sodium bicarbonate solution; two per cent mercurochrome solution; or tincture of metaphen, one part, with glycerin three parts. Apparently the withdrawal of arsphenamine did not lessen the effectiveness of the treatment excepting in one case with slight infection of the gums-apparently a chronic case with caries of the teeth. As these are difficult to treat by any method, the case was soon referred to a dentist who pulled one tooth, cleaned the tartar from the teeth, and reported that the girl was improved but that the smear was positive at the time of discharge.

Two case reports from the same family seem suggestive.

A boy, eleven years old, became ill with sore throat, malaise, listlessness, fever, anorexia of five days' duration, with all symptoms becoming gradually more severe. Examination showed a well-developed acutely ill boy with a temperature of 104° F. by mouth. The pharynx and tonsils were inflamed and a white membrane covered about half the exposed area of the tonsils. The gums were swollen, red,

First Day	Second and Third Days
0.125 gm. 4	0.25 gm. 3
0.125 gm. 3	0.125 gm, 4
0.0625 gm. 3	0.125 gm. 3 times a day
0.0625 gm	0.0625 gm. 3 times a day
	0.125 gm. 4 times a day 0.125 gm. 3 times a day 0.0625 gm. 3 times a day

and bled on slight pressure. Smears at this time showed fusiform bacilli but no spirilli. Antipyretics were given by mouth, the gums were painted daily with tincture of metaphen, one part, and glycerin, three parts, and the patient gargled hourly with a hot solution of sodium bicarbonate, one dram, and sodium chloride, one dram to a pint of water. The temperature fell to between 102° and 103° F., but the gums pharynx remained unchanged, and eating was so painful that only liquids could be taken. On the fifth day after the patient was first seen, a three-year-old sister also developed a similar "sore throat." The temperature in each case was 102° F. and the above mentioned mercurial was again Smears for each patient at this time showed fusiform bacilli and spirochetes in abundance.

The following day all previous medication was discontinued, and application and ingestion of acetarsone according to the routine dosage was instituted. At this time, the gingivae in both cases were edematous, red, and bled on the slightest pressure, and all foods but liquids were refused. Temperature was 102° F. by mouth in the boy, and 102.5° F. rectally in the girl. In twenty-four hours the temperature was normal in each case. The gums and fauces showed marked improvement and the patients were able to enjoy soft foods. Two days later the gingivae were almost normal in appearance and smears showed only occasional fusiform bacilli.

A final group was treated with acetarsone only. Ten cases used the doses outlined above, using a paste of the drug. In the smaller children this was applied with a cotton swab to the lesions and the patients encouraged to swallow all the drug. The older patients rubbed the paste gently into the gums with their fingers, and in this group the most dramatic results were obtained. In twentyfour hours most of them could eat without difficulty. The treatment was as effective as when other drugs were used in addition. At times the improvement was remarkably fast.

One case history is typical:

A seven-year-old boy compained of "sore mouth" of two days' duration. The temperature was 103° F. by mouth, and the gingivae swollen, inflamed, edematous, and bled freely on the slightest pressure. There was white exudate around some of the teeth. The gums were so tender that all but liquid foods were refused. A paste was made of acetarsone and gently mas-

saged into the gums by the boy with his finger as an applicator, with the crution that he should not use enough pressure to One hundred twenty-five hurt himself milligrams three times the first day and four times a day for the next two days were ordered. The mother was told to expect some improvement in twenty-four hours, and definite results in two or three days Her comment the next day was, "When you told me that he would be better today, I could not conceive of his being as well as he is now" There was marked clinical improvement, and he was then taking soft foods eagerly and without pain Two days later, he was discharged with gums almost normal in appearance and fusiform bacilly only in the smear Several weeks later, when he was seen for another reason, the gums were normal and a smear showed neither spirochetes nor fusiform

In three cases treated by other physicians, the treatment has not been considered satisfactory. In one patient the smaller dose of acetarsone advised by Rosenbaum was used, and when improvement did not occur quickly, sulpharsphenamine was resorted to Another patient took a large enough dose of acetarsone by mouth but it was not applied locally. Since there was a delayed response and since the patient was seriously ill, large doses of sulpharsphenamine were given mtravenously. The angina improved, but the patient developed severe arsenical derimatitis.

A third case was a housewife, thirty years old with chronic gingivitis around all her front teeth, particularly about a peg tooth with an enamel cap White exudate could be expressed from around the gums on moderate pressure Seven months before treatment with acctarsone, she had been treated with wine of specie and Fowler's solution for six weeks. Then she was given two doses of 0.45 gm of neoarsphena-Improvement was transient, and because of severe generalized reaction to the intravenous medication, local applications were resumed with the Fowler's solution and wine of ipecac Peroxide of hydrogen was used locally three times a day and Merril's "Detoxol" toothpaste was used The condition remained stationary, so acetarsone locally and internally was started with definite improvement in three days, yet the result was not entirely satisfacory, and she was referred to a dentist for further treatment

The only toxic symptom encountered was mild indefinite abdominal pain in two cases. The acetarsone was promptly discontinued, and on resuming treatment, liter, this symptom did not recur. Urine Communations carried out in many of the cases, revealed no abnormalities.

Discussion

The relation of the spirochete to the fusiform bacillus is not settled Tunnicliff,11 in studying the colonies of the bacterium fusiforms, found the bacillary forms in the smooth colonies, and the spiral organisms associated with the fusiform bacilli in the rough colonies. She thought the spiral organism might be a dissociant of the fusiform bacillus Varney 12 found the spiral-like forms began to disappear in cultures older than seventy two hours, leaving straight or slightly curved pointed bacilli Rosenbaum reported that the spiral forms disappeared first on treatment author's experience has been that in the early stages of the disease only the fusiform bacillus is found Later, both the fusiform and spiral forms are found, and as the patient improves, the spiral forms first disappear from the smears severe cases of stomatitis giving a clinical nicture of Vincent's infection, is one justified in omitting vigorous treatment until bacteriological evidence is obtained?

The significance of fusiform bacilli and spirochetes found in smears from stomatitis and angina is open to question Lictenberg, Werner, and Lucch¹⁸ presented material which they interpreted to mean that these organisms are not pathogenic D T Simth¹⁴ ably answered them and Bayne-Jones and Zinsser, in their recent textbook,¹⁸ agreed with

Many cases of Vincent's infection clear up with little or no treatment. The author has observed that several mild cases did well without arsenicals, but, nevertheless, has considered arsenic in some form to be indicated in severe cases.

The use of acetarsone in amebic infections suggests that in Vincent's infection superimposed upon pyorrhea, in which Entameba bucallis predominates, acetarsone might be more efficacious than other arsenicals

Since acetarsone is the most effective arsenical given by mouth in syphilis, local applications of the drug in spirochetal infections would seem to be more effective than the other arsenicals used similarly. The ingestion of the drug should add to its effectiveness because this would reach the deep seated infection. injection method of treatment with arsenicals is objectionable particularly in children. Sulpharsphenamine gives more frequent reactions than any other of the arsphenamine group, and in our experience has also given more frequent and more severe reactions than acetarsone. Sulpharsphenamine has been shown to have its greatest parasiticidal effect in three to four days.17 Glaser18 and Rosenbaum⁹ reported a delayed period in response to acetarsone, using smaller doses than we did. This interval has not been so noticeable in our cases. Should we no longer fear reactions to this drug and use it as vigorously as Hutter and Couvy recommended, we might further shorten this interval.

Local treatment with strong oxidizing or cauterizing agents is contraindicated as it breaks down nature's lines of resistance.19 Cleansing mouth washes and solutions of sodium perborate or hydrogen peroxide are helpful and indicated since one is dealing with anaerobic bacteria. Since they are also spirochetcidal, the mercury derivitaves, metaphen, merthiolate, mercurochrome applied and locally might be expected to be helpful. If all these fail, the intravenous injection of five c.c. of one per cent aqueous solution, antimony, and potassium tartrate is said to be specific in cases not yielding to arsenicals.20 Large amounts of orange

juice should be given to correct the possible condition of relative vitamin C deficiency.14

In general, cases of gingivitis should be referred to a dentist after the acute state is past.21 The teeth should be cleaned and all cavities filled and occasionally carious teeth extracted since these harbor foci for reinfection.

Summary

- 1. Fifteen cases of Vincent's infection of gums or fauces were treated with ten per cent arsphenamine in glycerin, locally, plus a mouthwash and gargle of sodium perborate. Results were satisfactory in all but two cases.
- 2. Twenty-eight cases received acetarsone by mouth, in addition. All made recoveries distinctly more rapidly than when acetarsone was not used.
- 3. Thirty-six cases were treated with acetarsone by mouth usually employing murcurial solution locally in addition to a sodium perborate mouthwash. Recovery was as rapid as in the above group.

4. Ten cases were treated only with acetarsone by ingestion and as a paste gently massaged into the affected part. All improved rapidly. The most rapid recoveries were in this group.

One chronic case of gingivitis previously unsuccessfully treated with neoarsphenamine intravenously improved but was not cured with acetarsone.

Conclusion

Acetarsone is a satisfactory arsenical for the treatment of Vincent's angina and stomatitis. Concurrent local application and ingestion of the drug are 6 WILLIAM STREET suggested.

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Case Report

TORSION OF HYDROSALPINX

RICHARD A. LEONARDO, M.D., Rochester

A twisted ovarian cyst is common enough, but torsion of the pedicle of a hydrosalpinx is a surgical curiosity, Eastman' carefully reviewed the literature in 1927 and his summary indicates that only ninety-one cases have been reported, most of them occurring on the right side. Some seven additional cases have since been The condition is of sufficient reported. rarity, therefore, to warrant reporting my own case.

The torsion may involve either left-sided or right-sided hydrosalpinx; and, theoretically, it should be counter-clockwise in all right-sided cases and clockwise in all leftsided cases, because of the action of increased intra-abdominal pressure which has the tendency to twist and turn the hydrosalpinx by forcing it downward and inward, towards the median line, along the brim of the true pelvis. In my case, which occurred on the right side, the torsion was counter-

clockwise, 1½ turns, as one would expect.

Mrs. L. F., age twenty-nine, with a previous record of sound health and one child six months old, on April 18, 1935, had a sudden attack of nausea and vomiting without pain which lasted one hour. On April 20, she had a second attack of nausea and vomiting, this time with pain, which lasted only one-half hour. Three hours

later pain recurred in the right lower quadrant. It was steady and persistent without nausea or vomiting. The pain centered about McBurney's point (where there was tenderness) and radiated down the right thigh almost to the knee.

Examination showed not only pain and tenderness over McBurney's point but also a mass in Douglas' culdesac which was somewhat tender and was thought to be a

retroverted uterus.

She was admitted to hospital on April 23 with a preoperative diagnosis of subacute appendicitis and retroverted uterus. At operation through a midline incision, it was found that what was supposedly a large boggy, retroverted uterus was in fact a gangrenous hydrosalpinx on the right side with torsion of the pedicle, counter-clockwise, 11/2 turns.

The distended tube was jet black and contained sero-sanguineous fluid. The ovary was normal; the uterus, anteverted, was normal in size and appearance.

The postoperative course was uneventful, with prompt relief of symptoms and complete recovery, excellent in every way, 277 ALEXANDER ST.

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BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B. LIBER, M.D., DR.P.H., New York City

Editorial Note: Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

Dark Clouds

A tall young man of twenty-eight sits down in the doctor's office. His correctly featured face is serious and appears indifferent. It is as if tarnished, as if the luster from a shiny surface had faded or had been removed. The eyes are open and show some sleepy intelligence. They are show some sleepy intelligence. They are directed toward the doctor, but they lack brilliancy and interest. The lips are closed as if determined not to speak, their ends slightly drawn downward. The entire body is motionless and passive, with no tendency to bend toward his interlocutor. It seems to be unconsiously satisfied to stay put. There is no sign of eagerness.

This patient has a wife and a small child

and she is pregnant again.

One learns about the trouble from an informant.

Patient has been working as a mechanical engineer for the last ten years. not acquired his knowledge in school. He was wide awake, attentive, studious and unafraid of work. In the last three years he holds a high and responsible position. He came into a small shop with two or three employees and through skill and devotion he has worked it up into a place where fifty men are busy. One of them, brought into the shop by our client, is a graduate from a college of technology and now almost as high-priced as this patient. The latter's work now is confined to managerial duties, buying and other similar things. His job is in the office and he is losing more and more contact with the actual mechanical work. He feels, therefore, that in a pinch he can be replaced as unnecessary and useless. But the owner of the firm still stands in admiration before this young miraculous fellow who has raised his shop to such a high degree and

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employer seems to make it clear.

Patient earns a good living and spends his money for his comfort and that of his family, without saving a penny.

has helped him, incidentally, to make a for-

tune. There is no question of dispensing with the services of this manager: the

Lately, patient is reluctant to go to work. When he gets up in the morning he is tired and shivers at the thought of leaving the house. In the working place he accomplishes little. He is doing his routine duties, but there is no progress. He creates no new problems and is uninterested in those that come up. He feels inferior to the chief engineer whom he himself appointed and who is able to untangle difficulties by mathematical methods which our patient does not understand.

There is, of course, a growing fear of losing the position—a fear, which, after examination, is easily explained by an actual desire to get rid of the job. Indeed, questioning reveals the fact that he would like to get into some other work, but cannot tell which—probably because the real answer, unknown to himself, should be: none,

There are no conflicts with the wife or with any member of the family. Marital relations are fine from all points of view. Family history seems to be negative for mental disturbances. Patient's past as a whole fails to explain his present mental state, which is akin to a depressed type of a "manic-depressive" psychosis. It is true that it has happened to him before to be "morose," but never to any appreciable extent, we are told. The impression prevails, however, that he is and has always been a melancholy person and that now his

condition is a great exacerbation of his usual state.

Some members of his family came to urge the doctor to "scold" him so that he make an effort to "extricate himself from his silly behavior." They had to be told how futile or harmful both the scolding and the effort might be. They had to be shown how much harm they could do particularly by "scolding" him.

His illness consists of a mental complex which makes him feel inferior and guilty and induces him to blame himself. It would, therefore, be utter folly to add fuel to the fire. He himself can hardly be expected—at least within a reasonable length of time—to get out of his difficult position. One might as well demand that a patient with fever remove his febrile state by sheer will-power! The symptoms which to a lay person or to an inexperienced physician may seem so easy to shake off are the very symptoms which constitute the patient's illness, and for which he seeks advice!

The social aspect of this young man's problem consists of his insecurity in case he lose his job and his fear of his lack of protection. Also the impossibility of getting any help for an extended vacation, his relatives being able to provide for a short rest from work only.

The physician begins by conversing with him a few times. Then patient is sent away for a month to one of his relations whom he likes and who provides him with a sufficient amount of physical work that is entirely different in nature from his usual occupation.

Later, after his return, he still finds his job open and his employer willing and eager to accept him. He has improved, but after a few months he falls back into his previous condition.

New sessions with the proper conversations and a change of work within the same plant finally effected a cure; that is a good adjustment and non-recurrence of the trouble for the last two years.

611 W. 158 St.

Public health authorities, meeting at the annual conference of the Milbank Memorial Fund at the New York Academy of Medicine on March 27, were told that 25,000 to 30,000 lives might be saved annually in the country if inexpensive or free pneumonia serum were generally and quickly available.

Dr. Russell L. Cecil, chairman of the subcommittee on pneumonia of the Medical Society of New York State, told of the progress in the use of pneumonia serum in a paper summarized before the full conference. The possible saving in life, he explained, could not be accomplished for some time because of the expense of the serum and the difficulty of typing the cases quickly enough, especially in country districts.

The treatment is most effective in Type 1 pneumonia, in which the serum can effect a two-thirds reduction in the death rate, he said, but there are also "promising" serums in Types 2, 5, 7 and 8. The Neufeld method of typing makes it possible to discover the type of the case in two or three hours, Dr. Cecil declared.

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EDITORIALS

The Medical Credo

The tragic circumstances surrounding the inauguration in absentia of President J. Tate Mason threw a pall of sorrow over the otherwise brilliant meeting of the American Medical Association. In such solemn moments fundamental beliefs, emerge clear-cut from the mists of controversy and transitory opinion. It was therefore as a binding reaffirmation of faith that the assembled physicians received the message brought from Dr. Mason by Dr. Brien T. King.

"To the public he asked me to say (knowing full well that this would probably be his last message to you) that the medical profession stands ready now to serve you, rich or poor, as it has always in the past; that it offers no apology for its past record, and that it looks forward to greater achievement in the future.

"To the medical profession (and again may I remind you that this may, and probably will he, his last message to you) he asked me to say: 'I have an abiding and unlimited faith in your integrity. I know you will keep faith with the public and never let selfish interests for one moment divert you from the high purpose to which you have dedicated your efforts and your lives.'"

The convictions voiced in this dying credo are the convictions that govern the living practice of medicine and have governed it for thousands of years. Disease is no respecter of wealth or power; and the physicians of America desire to retain the responsibility that has heretofore assured rich and poor, famous and obscure, of the same high quality of medical care,

"The medical profession offers no apology for its past record"—and needs no defense. In spite of changing political conditions and shifting economic views, the doctors of the country have continued unfalteringly on the road of devoted public service. They have endured countless impositions on their traditional charity and borne the economic burden of the needy sick. No matter how grave the threat to their security and welfare, they have forborn to employ the customary weapons of affronted interests.

In the face of American medicine's remarkable record of service and achievement, it is difficult to see how any one dares impute its opposition to compulsory health insurance to selfish motives. No one knows better than the physician how "the high purpose to which he has dedicated himself" can best be served. Medical integrity and initiative thrive best in the wholesome air of professional independence. They do not flourish in the stultifying atmosphere of political bureaucracy.

New York at the A.M.A. Meeting

It is a source of pride for those of us who attended the A.M.A. convention in Kansas City to note the fine role New York plays in the national association.

Our members contributed freely to the scientific sessions and to the Scientific The eloquent report of Dr. Arthur Bedell, reference committee chairman on scientific sessions, etc., was unanimously adopted. In his summations of the official activities and reports of the last year Dr. Fred Sondern's important and convincing reference committee report was accorded enthusiastic approval. Dr. Van Etten proved a genial and efficient Speaker and was unanimously reelected. The general popularity of Dr. Arthur Booth, a Trustee, bespeaks his effectiveness in an office which carries the responsibility of being one of those whose actual directional force governs A.M.A. policy. Dr. Edward Cunniffe has been placed on the Judicial Council.

In view of the precarious condition of health in which Dr. Tate Mason lives, it was a signal mark of honor for the national association to turn to New York to draft one of its most distinguished sons to fill the office of vice-president. need not introduce Dr. Charles Gordon Heyd to New York. At present, acting for the stricken President, we are indeed proud of the honor which Dr. Heyd has brought our State. We know him, and are therefore confident in predicting that the American Medical Association has made a wise choice.

Now that the shouting and acclaim have passed, it remains the task of all of us to touch shoulders and walk together toward our ever-beckoning goal whose objective is our constant aim. Let us continue to work for all projects and ideas which will enhance our service to the public, and let us, while guarding all that is worthwhile in our profession, meet the current trends in public affairs una-A profession united in work for fraid. the welfare of the public, and for the maintenance of the highest possible type of medical care for all, cannot fail.

An Ounce of Prevention -

The Annual Report of Counsel to the State Society again emphasizes the part that careless criticism frequently plays in the instigation of malpractice litigation. Patients are rarely informed or dispassionate enough to evaluate justly a reflection cast by one physician on another's A remark made hastily and without malicious intent may be the starting point of a lawsuit which will cost a colleague heavily in money or reputation, or both.

It is true that the agreement on which the Society's group insurance plan is based prevents exploitation of the profession by nuisance settlements. The carrier is pledged to combat all claims that have no valid basis. Even when the outcome of a case is complete vindication, however, the practitioner forced into the role of defendant loses time, practice, and the spotless good name that has never been tainted with suspicion.

Physicians can help protect their colleagues against groundless malpractice actions by maintaining a careful check on their tongues at all times. It is possible to change medication or alter treatment without reflecting on the competence or good faith of antecedent practitioners on a case.

Doctors can safeguard themselves, too, by a variety of simple precautions. Medicine bottles should be carefully labeled, with a distinctive mark on poisons to set them apart from harmless drugs. Strict antisepsis should be observed in all procedures and no surgery, no matter how trifling, performed without a written consent. Accurate records should be kept—and kept confidential.

Every practitioner of medicine should have in his library a handy volume summarizing his statutory rights and duties. It goes without saying that no physician can afford to be without malpractice insurance—and there is no likelihood of lowering the costs of this essential protection until the proverbial ounce of prevention comes into its own in every medical office.

Rheumatic Fever and Rheumatoid Arthritis

From a practical standpoint, the clinical differentiation between rheumatic fever and rheumatoid arthritis is a necessary one because each has its characteristic syndrome and each requires an individual type of therapy. When viewed from the theoretical side, however, the separation of the two conditions may not be justified.

Dawson and Tyson¹ who have considered the problem front its many phases—familial, seasonal, geographical, etc.—are convinced that the two diseases are interrelated and merely represent different forms of a common pathological process. Exactly what may determine these variations in reactions to a supposedly identical etiological agent still remains to be determined. Age, and the susceptibility of the individual are considered as important factors, although other circumstances may still play an important role.

While the hypothesis advanced by Dawson and Tyson does not coincide with the one generally accepted by the American and British clinicians who regard rheumatic fever and rheumatoid arthritis as distinct entities, a definite opinion cannot be formulated until the etiology of both conditions has been established. At the present time a streptococcus of the hemolytic group is suspected as the cause, but the evidence is not conclusive.

Physicians are always interested in the discussion of medical problems, theoretical or otherwise. They are interested vitally, however, in the practical outcome of these controversies. Therefore, until this problem has been settled to their satisfaction, rheumatic fever still will be treated in one way while rheumatoid arthritis is coped with by other means. The care of the sick is still the foremost concern of our profession.

Von Gierke's Disease

An important contribution to the understanding of "glycogen disease" has been made by Ellis and Payne.¹ This affliction is recognized but rarely despite the fact that it presents characteristic biochemical abnormalities. The latter include acetonuria, an increase in the glycogen content of the blood, a low fasting blood sugar, and a failure of a rise in sugar following the administration of adrenalin. In addition, an increased blood cholesterol is commonly associated with a delayed failure of the blood sugar to fall after a test meal of dextrose.

The symptoms presented by involvement of the vital organs often overshadow the true cause of the patient's complaint. While the glycogen which accumulates in the organs produces an enlargement of the liver, kidneys, heart, and pylorus, the obesity, cyanosis, and signs of cardiac failure may mask the clinical picture which this ailment presents.

The enlargement of the liver is rarely accompanied by jaundice, and bile has not been recovered in the urine. The cause of this disease has not been established, although everything seems to point to a deficiency of a glycogen splitting ferment. Ellis and Payne believe that a dysfunction of the anterior pituitary gland is the probable cause. They also comment on the possible congenital nature of this disease. While they have not been able to demonstrate any case of direct transmission, consanguinity was a factor in three of twenty-five family groups.

CURRENT COMMENT

Dr. S. Weir Mitchell once said, "However far medicine may develop as a science, the successful treatment of the sick will always be an art."—According to the Supplement to *The Bulletin* of the Bronx County Medical Society.

LANGDON W. Post, in Today of May 9, says: "There is one thing which everyone

^{1.} Dawson, M. H., and Tysen, T. H.: J. Lab. and Clin. Med. XX 21:551, 1936.

^{1.} Ellis, R. W. B. and Payne, W. W.: Quarterly J. of Med., 5:31, 1936.

interested in housing can agree upon, namely the need for housing. From that point on, however, the roads to solution and method go off in as many different directions as there are ideas. * * * One fundamental question * * * arises: Should the government, the state, the city or the county undertake to subsidize housing for those whom private initiative cannot reach?

The answer to this question, of course, is the first step in the solution of the problem. Only when this is settled can the ensuing problems be taken up with any chance of their being satisfactorily solved. * * * "

Writing of youth, its education and attitude in regard to state medicine, the editors of the Sedgwick County Medical Bulletin state that: "For centuries statesmen and educators have realized that the best place to influence public opinion and to spread an idea is among the youth. seems rather significant, therefore, that those groups which have been most active in proposing socialized medicine, should now be working in the schools of the country. Efforts to build sentiment for state medicine will continue, and if the youth, who are to decide our problems tomorrow, are to have a rational outlook upon the medical aspect of these problems, it is imperative that physicians take the time and the effort to give them this point of view. The physician through the very nature of his work and through his contact with the family group should be able to obtain a sympathetic hearing on these things, which are so vital Some serious and to medical progress. conscientious work individually among our patients, and as a group in our schools, will in the future bring big dividends to us in a more enlightened and sympathetic citizenry."

"WITHOUT FREE SPEECH no search for truth is possible, without free speech no discovery of truth is useful, without free speech progress is checked and the nations no longer march forward toward the nobler life which the future holds for man. Better a thousandfold abuse of free speech than denial of free speech. The abuse dies in a day but the denial slays the life of the people and entombs the hope of the race."—Charles Bradlaugh quoted in the St. Louis County Medical Society Bulletin.

"THE AMERICAN MEDICAL ASSOCIATION must use its ingenuity and by the concerted action of physicians, welfare agencies, sympathetic public and other auxiliary forces,

and at the same time furnish constructive plans to defeat compulsory health insurance, as would insure adequate compensation to the physician and a high quality of medical service to the people. Only then will organized medicine have the right to expect full cooperation from the entire profession."—Harry Projector, M.D., in the Bronx County Medical Bulletin.

Mr. J. Weston Walch, the man, it will be remembered, who compiled the "Handbook on State Medicine" used by so many of the 100,000 high school students who debated the topic this past winter, says that: "The case against state medicine is strong enough, if only the medical profession generally would bring it to the attention of the general public! But the public is not simply going to take the doctor's word for it that socialization is bad. The average patient respects the physician's advice on medical He has never been given any reason to believe the doctor is also an expert on finance and administration. It will not do for physicians and their organizations merely to continue to pass resolutions—the public must be continually reminded of the real facts and dangers of public encroachment on private medicine."-From Medical Economics of May, 1936.

"In an election year, when all the candidates are making earnest appeals to the common sense of the normal and average citizen, it is unkind of Dr. L. W. Darrah, head of a Massachusetts State hospital, to say that the normal man is a very difficult fellow to find—and probably doesn't exist at all."—So say the editors of *Today* in their May 16 issue.

"THE HEALTH OF THE FUTURE will not be a health officer's product, a negative achievement of reduced death rates, but the accomplishment of individuals who choose their ways of life with understanding, according to their inheritance, their ambition to survive and be superior, and consistent with the immutable laws of human biol-* * * Our society and the nations ogy. that are everywhere our neighbors, will owe an increasing debt to those who can make the science and art of curative medicine less and less necessary, by reason of the understanding in childhood and youth of the good way of life."-Dr. Haven Emerson, quoted in part from a talk presented before the Sixteenth Annual Meeting of the American Student Health Association held in New York City.

COMMENTING UPON THE ONSLAUGHT on the physician by the drug manufacturers The Weckly Roster and Medical Digest of the Philadelphia County Medical Society states that: "There is the herculean project of trying to get the physicians to understand that the tricky names in the medical advertisements are but disguises for old friends. Drug therapy has changed very little in its essentials in the last twenty-five years, but the philological variations are wonderful to gaze upon. In following the lead of the advertising copy and the persuasive guidance of the detail man, the

practitioner may find himself in a maze of trouble. Cincophen, pyramidol, and other products with musical sound are not restricted in their effects to one single beneficial result. How many of us know anything about them, except what has been pumped into us by high-powered and high-priced salesmanship? Our materia medica is still ample to withstand all the demands we may put upon it, and when we depart from it, we not only load an unnecessary expense on our patients but drive them into self-drugging. * * * * *

Correspondence

[The Journal reserves the right to print correspondence to its staff in whole or in pars whiles marked "crivate." All communications must corre the uniter's full name and address, which will be omitted on publication if desired. Anonymous letters will be disresorded.

62 West 87 Street, New York City

To the Editor:

At the close of the Scientific Exhibit of the Medical Society of the State of New York held at the Waldorf-Astoria Hotel, New York City, on April 29, 1936, the entire exhibit of twenty-four charts on the Management of the Pneumonias shown in space 18 by Dr. Jesse G. M. Bullowa was taken and has not been returned nor has the owner been notified. Much of this unpublished material was shown for the first time and no photographs of the charts were made. It would cost more than three hundred dollars (\$300.00) to redraw the charts.

The exhibit consisted of three charts showing the method of Sputum Typing, drawn by Edith T. Woolf and labeled Lit-tauer Pneumonia Research Fund, New York University; charts showing the relation of sex and age to the incidence and mortality of the lobar pneumonias; a chart showing the type distribution in 4,000 cases of lobar pneumonia by decades; a series of charts showing the concentration of oxygen in the alveolar air by the forked nasal inhaler and by catheter administration and the concentration of oxygen in the alveolar air in an oxygen chamber with various concentrations of oxygen. To one chart with drawings signed Sturm was attached a Bullowa metal oxygen inhaler, Foregger, and a soft rubber nasal catheter. Another series of charts showed the results of specific serums in shortening the illness and in reducing the mortality in pneumonias due to pneumococcus type V and to pneumococcus type VII.

A reward is offered for information

concerning the present location of these charts. No questions will be asked, Call SChuyler 4-8123.

Very truly yours,
JESSE G. M. BULLOWA, M.D.

May 8, 1936

1192 Park Avenue, New York City

To the Editor:

Kindly give space in the next issue of

the JOURNAL to the following letter:
On page 740, Volume 36, Number 9,
May 1, 1936 in the New York State Jour-NAL OF MEDICINE appeared a letter by Dr. Cravener, in which he criticizes the physical therapy treatment of traumatic subdeltoid bursitis described in my article in the Journal of April 1, 1936. The doctor seems to be imbittered, thinking, probably, that physical therapy is interfering with his business. But, as a matter of fact, yet at the dawn of physical therapy, famous surgeons, like the noted Codman of Boston, have tried to treat traumatic subdeltoid bursitis by non-surgical methods. Their efforts were not at all successful while modern physical therapy is successful in over ninetyfive per cent of such cases.

Dr. Cravener does not realize that the article on bursitis is a result of my ten year experience in a large physical therapy clinic in the city of New York where the greatest number of my patients were treated. He does not realize that the cases were referred by the surgeons and the orthopedic surgeons of the corresponding clinics, and that these New York surgeons know as much about and are interested in the "exact ctiologic diagnoses of subdeltoid bursitis

and its contraindications for physical therapy" as Dr. Cravener of Schenectady. I wish to assure the doctor that many physicians and surgeons who happened to see me since my article was published had nothing but hearty praise for it. Their experience with me proved to them that my methods are employed with benefit for the suffering patient, as can again be illustrated by the following interesting case:

During the winter's cold spell and snow blizzards which affected a number of states of our country, including New York and New Jersey, a young woman, a resident of the latter, and a mother of two children, became afflicted with traumatic subdeltoid bursitis (as diagnosed by her physicians and later by myself). She was treated by good men; she was even treated in an institution. But somehow the pain was not relieved by those treatments. The severe pain drove the woman almost to craziness, and she started to talk of suicide.

became so despondent that she did not even care to have her shoulder radiographed. But the surgeon did not operate. The suffering woman was referred to me, and her husband drove her to my office in his Ford daily in spite of the snow blizzards and difficulty of transportation. Five consecutive treatments totally relieved her pain. An x-ray of the patient's shoulder was then taken by Dr. A. C. Linden of New York. The radiologic study indicated the presence of a calcified subdeltoid bursitis. This relatively quick relief of pain not only avoided much trouble in a happy, peaceful American family, but was probably lifesaving to the young mother.

I hope that this letter may stimulate Dr. Cravener's interest in Physical Therapy so that he may eventually crave the cooperation of the worthy physical therapist.

> Very sincerely yours, Joseph Echtman, M.D.

May 8, 1936

Society Activities

Legislative Session-1936

BILLS SIGNED BY THE GOVERNOR

Senate Int. 219—Schwartzwald; Health Dept. to supply blank forms, etc., for recording marriage licenses.

Senate Int. 220-Schwartzwald; stillbirths without attendance of physicians or midwife shall be treated as deaths without medical attendance.

Senate Int. 233—Budget Bill: appropriat-

ing \$10,000,000 for TERA.

Senate Int. 377—Quinn; misdemeanor to bring indigent persons into State for care or treatment at State expense in institutions within Mental Hygiene Dept.

Senate Int. 535—Schwartzwald; Mental Hygiene Law, requirements necessary to gain residence in this State to be not less than those required for acquiring residence in state from which non-resident comes.

Senate Int. 536—Schwartzwald; permitting State Health Commissioner to deputize any assistant to perform in his place any

act he is empowered to do.

855—Schwartzwald; Int. direct reports to State Health Dept. or district health officer of certain communicable diseases in districts of less than 50,000 not having whole-time health offi-

Assembly Int. 136—Taylor; Civil Practice Act, embodying in new section testimony of physicians, surgeons, and nurses.

Assembly Int. 814—Swartz; prisoner sent to hospital because of sickness must be kept in custody of officials in charge of jail to which he is committed.

Assembly Int. 963—Parsons; hospital lien bill.

Assembly Int. 1158—Swartz; qualifications of supt. of Napanoch institution to be prescribed by Correction Commissioner.

Assembly Int. 1793—Robinson; creating board of psychiatric examiners in Mental Hygiene Dept. for making rules and regulations governing practice of psychiatry, etc.

Assembly Int. 1794—Robinson; relative to inquiry into insanity or mental condition of a defendant before or during trial or before sentence.

Assembly Int. 1823—Breitbart; N. Y. City Inferior Criminal Courts Act, relative to blood-grouping tests of mother, her child, and the defendant.

Assembly Int. 1872—Breitbart; Civil Practice Act, relative to blood-grouping

Assembly Int. 1884—Brownell; New York City maternity hospitals to be licensed by Commissioner of Hospitals.

BILLS IN THE HANDS OF THE GOVERNOR

Senate Int. 12—Buckley; providing jury duty exemption only for lawyers, doctors, etc.

Senate Int. 17-Fearon; for optional

forms of county government. Senate Int. 1084—Schwartzwald; compensation for silicosis and certain injuries to respiratory tract resulting from inhalation of harmful dust, and for prevention of dust hazard in pub. works.

Senate Int. 1559-Schwartzwald; to make studies and disseminate information on subject of control and prevention of diseases

caused by inhaling harmful dust. Senate Int. 1569-Feld; Education Law,

practice of podiatry.

Senate Int. 1589-Livingston; tests for hearing to be made with audiometers or such other scientific devices as may meet approval of Education Commissioner, etc.

Senate Int. 1649-D. T. O'Brien; requiring applicants for learners' permit to take a vision test or other examination to dis-

cover defective eyesight.

Senate Int. 1695—Schwartzwald; Mental Hygiene Law, relative to mental defectives

and institutions therefor.

Senate Int. 1771-Livingston; requiring immediate report by physician or nurse, parent or guardian in charge of any minor under six years who is totally deaf or whose hearing is impaired, for proper treatment by welfare or other agency and for giving information as to proper instruction.

Senate Int. 1791—Esquirol; Domestic Relations Law, relative to blood-grouping tests of mother, her child, and the defendant.

Senate Int. 1947-Mandelbaum; for pro-

duction of records of any department or bureau of a municipal corporation showing entries or records or any other data relating to physical condition or treatment of a hospital patient.

Assembly Int. 988-Miss Byrne; excepting from provisions of Workmen's Compensation Law an intern in a prison, reformatory, insane asylum or hospital maintained by a municipality or other subdivision of State.

Assembly Int. 1356—Crews; appropriating \$100,000 for payment of expenses of Labor Dept. for prevention of silicosis and

other dust diseases.

Assembly Int. 1613-Sherman; name of State tuberculosis hospital near Oneonta to be the Homer Folks Tuberculosis Hospital.

Assembly Int. 1690—Bush; defines wholesaler, as applied to narcotic drugs, to be person who supplies others than consumers with narcotic drugs or preparations containing narcotics that he himself has not produced or prepared.
Assembly Int. 1842—Allen; appropriates

\$10,000 for the Cornell State Veterinary College to study prevention and control of Bang's disease in bovine animals by vaccina-

tion, and suppression of mastitis. Assembly Int. 2220—Wadsworth; for reorganizing State Department of Social Welfare and for transferring thereto the functions of TERA.

Assembly Int. 2277-Holley; relative to records of births.

Committee on Workmen's Compensation

May 13, 1936

Under section 13-j, chapter 258, of the amended workmen's compensation law, entitled medical or surgical treatment by insurance carriers and employers (paragraph 2), an employer may maintain a compensation bureau at the place or places of employment, if such bureau is required because of the nature of the industrial hazards or the frequency of injuries to employees arising out of industry. Such bureau or bureaus shall be authorized and licensed pursuant to section 13-c, and their use by an injured employee shall be optional in accordance with the provisions of section 13-a.

After a number of hearings, the following rules and regulations have been established by the Industrial Commissioner in respect to the licensing and operation of

compensation medical bureaus:

Rule No. 1. The character and frequency of accidents, the number of employees in a given plant, and the availability of qualified medical care in the immediate vicinity of the place of employment should be considered in relation to the authorization of an employer's compensation medical bureau.

Rule No. 2. The bureau should be located in the Industrial plant or in the immediate vicinity.

Rule No. 3. The question of the necessity of the presence of a physician during working hours, or the availability of a physician at stated hours should be determined by an inspection of the plant to ascertain the nature of the hazards and the frequency of accidents.

Rule No. 4. The bureau shall be well housed with sufficient space, light and air, and shall conform to reasonable sanitary requirements. Proper facilities in the form of personnel for assistance in emergencies, instruments, sterilizers, dressings, drugs, shall be available at all times and in amounts proportionate to the size of the plant and the number of employees. Such facilities shall be adequate for more than mere emergency care and for the more severe type of industrial injury.

Rule No. 5. A bureau license may be given for a stated project which, because of the hazards of the project and the frequency of acci-dents, requires continued medical care and such license shall be for the life of the given project only. In such cases all employees of all sub-contractors shall be covered by the license.

Rule No. 6. No license shall be issued to an employer to cover any but his own employees, except as indicated in Rule No. 5.

Rule No. 7. First Aid Stations-No license is required to operate a first aid station by an employer of labor. Such first aid or emergency station should be properly equipped for first aid in accordance with the type of hazard encountered at the particular place of employ-

Rule No. 8. Form C-105, a notice of the rights of an injured employee and the responsibilities of the employer, shall be posted in each compensation medical bureau and first aid station.

The licensing of employers medical bureaus is dependent upon the recommendation of the county medical society or its Workmen's Compensation Board, therefore the above rules and regulations have been adopted for the guidance of county medical boards. They are requested to proceed at once with the inspection of the premises of all employers who have applied for bureau licenses. Application forms for employers bureaus may be obtained from the district offices of the Department of Labor. After a thorough investigation and consideration of the number of accidents, the character of same, and the hazards presented at a given place of employment, etc., the County Society Board shall either recommend or reject and report its findings to the Industrial Commissioner at 80 Centre Street, New York City. If the County Society Boards so desire, they may send their recommendations to this Committee for submission to the Industrial Commissioner.

Any further information in regard to the licensing of employers medical bureaus may be obtained by addressing the Committee:

> DAVID J. KALISKI, M.D., Chairman FREDERIC E. ELLIOTT, M.D. B. WALLACE HAMILTON, M.D.

Postgraduate Lecture Courses

conducted by

The Committee on Public Health and Medical Education

On April 8, Doctor Charles A, Weymuller concluded a course on General Medicine, given to the Sullivan County Medical Society, with a lecture on "Diabetes in Child-hood". This lecture was considered by the society to be a "very fine presentation of a difficult subject." Previously, Doctor Lambert Krahulik had spoken on "Rheumatism and Rheumatic Carditis in Childhood", and Doctor George H. Roberts on "Recent Advances in Therapeutics". Both of these lectures were very well-received.

A course on General Medicine has been given in Chemung County with lectures at the Arnot Ogden and St. Joseph Hospital in Elmira, alternately, on Wednesday evenings. The first lecture was given by Doctor O. W. H. Mitchell on "Staphylococcic Diseases" and the second by Doctor James K. Quigley on "Practical, Everyday Obstetrics". On April 15, Doctor Russell Cecil spoke on "Pneumonia", and on April 22 Doctor Martin B. Tinker spoke on "The Diagnosis and Treatment of Thyroid Diseases from the Standpoint of the General Practitioner". The remaining lectures of the course were on May 8 on "The Newer Endocrinology and Gynecology", by Doctor Thomas P. Farmer, and on May 13, "The Management of Hypertension" by Doctor Clayton W. Greene. This same course is

being given to the Steuben and Tioga County Medical Societies on Thursdays in May and June, the first lecture having been given on April 23. The first three lectures in this course are coincidal with the last

three in the Chemung County Course. St. Lawrence and Jefferson County Medical Societies have had a course of lectures as follows:

Skin Discases

May 14.......Dr. Duncan Macpherson
The Relationship of Rhinolaryngology
to General Medicine

21......Dr. M. Sulzberger
The Relationship of Dermatology
to General Medicine May 21.....

A course on Orthopedics and Orthopedic Surgery, arranged by Doctor Leo Mayer, was started in Herkimer and Montgomery County Medical Societies, the meetings held at Herkimer at 4:00 P.M., and at Amsterdam at 8:30 P.M., on Thursdays through May. The first lecture by Doctor Samuel Kleinberg, on "Back Pain" was an excellent one.

The President's Medal

The following remarks were made during the Ceremony of the Investiture of Frederic Kondern, M. D. with the President's Medal at the 130th Annual Meeting of the Medical Society of the State of New York, New York City, April 28, 1936 by Harry R. Trick, M. D., Chairman of the Board of Trustees.

Throughout the long lifetime of the Medical Society of the State of New York a very kindly and appropriate custom of extending a vote of thanks to the retiring President for his service to this Society has been preserved.

This vote of thanks has always been deeply appreciated by the recipient and became one of his most cherished memories as well as his reward.

For one hundred and twenty-nine years men have come and gone as Presidents of the Medical Society of the State of New York with no other formal recognition of their service than that just mentioned.

The only dissatisfaction with the procedure in the minds of a large number of the members seemed to be that the incident was of such a transient character it failed to express the true feelings of the members and something more tangible and permanent has long been desired.

During the recent past this idea has been brought to a complete fruition in the form of a medal, appropriately inscribed and suspended from a ribbon to be worn around the neck of the one so honored on all formal social functions of the medical profession.

It is singularly appropriate that our present retiring president should be the first to be so honored and it now becomes my very pleasant duty as Chairman of the Board of Trustees to confer it upon him.

Doctor Sondern, because of your unfailing devotion to Organized Medicine, and because of your incorruptible belief in the Ideals of Medicine and most particularly because of your faithful and diligent service to this Society, I confer this honor upon you.

May you live long to enjoy this mark of our appreciation and affection.

Public Health News

Poisonous Fruit and Vegetable Sprays

From the column sponsored by the Associated Press titled "How's Your Health?" and edited for the New York Academy of Medicine by Dr. Iago Galdston.

No one seriously had faith in the old saw that an apple a day keeps the doctor away. Now, however, since the practice of spraying fruits and vegetables with poisonous insecticides has become widespread, an apple a day, on the contrary, may necessitate the doctor's services, especially if, as is the case in many instances, the apple comes to the consumer with a fine coating of arsenic and lead.

The fruit and vegetable industry and the consumer are both confronted with a serious and difficult problem. To combat the ever-increasing insect infestation, the growers of fruits and vegetables must utilize poisonous chemical sprays. To make these syrays more effective they have in recent years been combined with so-called binders, consisting of casein (a milk derivative) or oil. While the insecticides are thus rendered more poisonous for the insect, they also mount as a threat to the health of the consumer, for insecticides thus applied are not removed by ordinary wiping and indeed

require an acid washing solution to be removed effectively.

Fruit growers have given attention to this important health problem, but that not all is as well as it ought to be, may be witnessed in the fact that during the fiscal year of 1935 the United States Food and Drug Administration made 338 seizures of fruits and vegetables in interstate commerce. Of these 299 were apple shipments. All of these shipments contained more residual poisonous spray than is allowed by law.

Since the Food and Drug Administration has authority only over foods in interstate commerce, the following warning is of pertinence:

Since interstate shipments alone are subject to regulation under the Federal Act, the public will never be entirely protected as long as poisonous sprays are applied until all state authorities exercise the same degree of effective surveillance that is now maintained in some states.

Medical News

Secretaries of County and local Medical Societies are requested to send the programs of coming meetings of this department one month in advance, for the information of members who may be interested.

Bronx County

THE BRONX COUNTY MEDICAL SOCIETY at its meeting on May 20 listened to addresses on State Legislative activities by Harry Aranow, M.D., and on Industrial Medicine by Herman B. Schoenberg, M.D., with discussion by McIvor Woody, M.D., Herbert C. Chase, M.D., and Michael Lake, M.D.

Erie County

A SERIES OF IMPORTANT studies are being made by the Survey Committee of the Medical Society, County of Erie, with a two-fold purpose, viz.: (1) To establish a unified and one hundred per cent cooperative medical society, and (2) to find ways and means to correct present economic ills. The committee is asking each member to cooperate in furnishing data, confidential reports and other materials necessary. The chief agenda:

1. A study of the entire problem of splitting of fees.

2. The present causes of fraternal dis-

sension and the remedies.

3. Our relations to the subsidiary divisions of the Health Department: (T. B. Division; Well Baby Clinic, Vaccination and Inoculation.)

4. Hospital and dispensary practices in re-

lation to the practicing physician.

5. A study of so-called hospital insurance plans.

6. A rating and collection bureau.

- 7. Public education and radio programs.
- 8. The compensation law and its operation and enforcement in Erie County.

9. The present drug situation.

Greene County

THE MAY MEETING of the Greene County Medical society was held at the New Saulpaugh hotel in Catskill on May 12. Dr. James Rooney, Albany, was the principal speaker.

Kings County

THE DOCTORS' CLUB of Brooklyn held their annual adventure session and dinner on May 16 at the Hotel Bossert. Dr. William E. Aughinbaugh of Newfoundland, Labrador, Iceland, Asia, Africa, and Latin America, was toastmaster. The Doctors'

Club was organized by Dr. Charles F. Fisher, in 1931, to discuss everything except scientific medicine. That policy still continues with Dr. William L. Wolfson now the president. Dr. Fisher still continues as an active member of the board of governors. The guest speakers included Clyde Eddy, only white man to survive two trips down the Colorado River; Tracy Richardson, professional soldier specializing in Mexican revolts; Jack O'Brien, member of the Byrd Antarctic Expedition; and Kenneth Dick, who toured the world on \$2 and returned with some change.

Monroe County

RESEARCH IN THE laboratories of the University of Rochester School of Medicine and Dentistry, will be aided by two grants, totaling \$16,400, from the Rockefeller Foundation. A maximum of \$10,000 to be used over three years, has been granted to further the investigation into filterable viruses—sleeping sickness, influenza, smallpox and rabies producers—being carried on under direction of Dr. George Packer Berry, professor of bacteriology.

The other \$6,400 will go to aid Dr. Stafford L. Warren, associate professor of medicine and radiology, in his study of the biological effects of heat (artificial fever).

Montgomery County

THE SECOND MEETING in the post-graduate course of the Medical Society of the County of Montgomery was held on May 8 at Amsterdam. The meeting was addressed by Dr. Nicholas Ransohoff and Dr. J. E. Milgram, from New York City. Dr. Ransohoff spoke on "Posture and Health," and "Correction of Paralytic Deformities of the Upper Extremity" was Dr. Milgram's topic.

New York County

Dr. John M. Wheeler, professor of ophthalmology in the Medical School of Columbia University and director of the Eye Institute at the Columbia-Presbyterian Medical Center was presented with the Leslie Dana Gold Medal for "outstanding achievements in the prevention of blindness and the conservation of vision" at a dinner in his honor in St. Louis on May 9. Dr. Wheeler was selected for the award by the

National Society for the Prevention of Blindness in cooperation with the St. Louis Society for the Blind which offers this highly prized mark of recognition annually.

Onondaga County

THE FEATURE OF THE JOINT DINNER OF the Onondaga Medical Society and the Onondaga County Bar Association in Syracuse on May 2 was an address by Dr. Floyd S. Winslow of Rochester, the new president of the State Medical Society. Dr. Winslow urged both professions to place less dependence on organizations and more on individual improvement. He added:

"Wouldn't it be a good thing if we all worried a little more about our personal efficiency and the importance of kindness and consideration for patients and clients?"

L. Earl Higbee, county bar association president, and Dr. Earle E. Mack, who heads the medical society, staged a mock battle for the honor of presiding and finally compromised by yielding the floor to Assemblyman Horace M. Stone as toastmaster, who convulsed the 500 guests with dry quips, aimed particularly at alleged "lobbying" of both professions' representatives at Albany.

Ontario County

An Appreciative "write-up" in the Rochester Times-Union tells us that Doctor Allan R. Dafoe's job of guarding the health of the quintuplets must be a cinch compared to the work of Dr. Barton T. McDowell of Bristol Center. Doctor McDowell, Ontario County director of school hygiene, personally minds the health of 6,000 children in sixteen towns.

Annually he visits every school in the county with the exception of those in the cities of Geneva and Canandaigua. He examines the eyes, ears, nose, throat, teeth, and heart of every pupil, Reports of the examination and suggested corrections are then sent to parents from the Canandaigua office of Doctor McDowell, who lives in Bristol Center. Next a checkup is made on the corrections.

The work keeps Doctor McDowell busy from September until the next July. He is assisted by the school nurses, Miss Elizabeth Jepson, Canandaigua, and Miss Muriel Rector, Gorham, and an office girl.

Now in its eighth year, this county school hygicne department is the only one of its kind in New York State. It is supported by the county. Doctor McDowell has been reappointed annually by the chairman of the Ontario County Board of Supervisors

and three district superintendents of schools. From five per cent the first year the number of corrections made in defects revealed by the examinations has increased to 47 1/2 per cent last year.

Orange County

THE ORANGE COUNTY MEDICAL SOCIETY held its annual banquet at the Occidental Hotel at Goshen on May 12. About fifty were present.

Queens County

THE STABLE FOINT of population in the metropolitan area will be reached about 1965 when the population will be eighteen million, Dr. Haven Emerson, professor of public health practice at the College of Physicians and Surgeons, said on April 21 before the Queens Medical Society at the Medical Center in Forest Hills.

He pointed out that stabilization of the population will be reached only if the immigration laws are not changed. The population of the United States will reach its stable point in 1960, five years before the metropolitan area which includes the five boroughs, Westchester and some counties in New Jersey. His figures are based, he stated, on the narrowing of the margin between birth and death rates within the past few years.

Dr. Emerson said that these figures were compiled by a survey committee which investigated exact population, hospitalization facilities, cost of hospitalization and what future hospitalization needs and costs will be. He said the survey considered hospitals, ambulance service, convalescent and chronic homes, visiting nurse and social services and home care of the sick.

A CHILD HEALTH DAY program was sponsored by the Medical Society of Queens in the Society Building on May 1. Grade schools were awarded silver cups for showing the highest percentage in the correction of physicial defects. The cups presented by Dr. James M. Dobbins of Astoria, the president of the society, were received by child representatives of P. S. 129, 11, 90, 7, 12, 88, 101, and 81. Daniel P. Higgins, president of the Catholic Youth Association was the principal speaker.

Schenectady County

THE SCHENECTADY COUNTY MEDICAL SO-CLETY listened to an address on the treatment of cancer by Dr. Francis C. Wood of New York City at its meeting at the Ellis Hospital auditorium in Schenectady on May 5.

Medicolegal

LORENZ J. BROSNAN, Esq.
Counsel, Medical Society of the State of New York

Physician and Patient-The Value of Professional Services

A few years ago the highest Court of one of the eastern states handed down an interesting decision involving the question of the manner in which a physician is entitled to compute the amount of the fee that he may properly charge a patient.*

The plaintiff in the case was a physician of concededly high standing in the profession as a surgeon. He was called into consultation concerning the condition of a certain Mrs. D. who had been in poor health for some time. Various doctors had been attending her but they had been unable to reach a diagnosis of her ailment. The surgeon subjected her to a physical examination and placed her under observation making various blood tests and x-ray examinations. He finally concluded that she was suffering from cancer of the intestine, and advised operation.

The patient's condition was discussed by the doctor with her husband, and he was told that an operation was absolutely necessary if she was to live. Upon one such interview the subject of fees came up and the husband told the doctor he was going to ask the amount of the charges, but said, "but I won't bother about that. I am able to pay." The doctor named no fee but stated that he usually made a charge satisfactory to the patient, the family doctor.

and himself.

While the operation was still being considered, but not definitely agreed upon, the patient developed an obstruction of the bowel, calling for immediate operation. The surgeon then performed an operation in three stages upon her, which was later described as a rare operation requiring the highest degree of surgical skill. The series of operations were performed over a period of five weeks. The surgeon succeeded in obliterating the obstruction in the bowel, removed the cancer, and restored the continuity of the bowel following the dissection of the malignancy. The operation undoubtedly saved the life of the patient, and three years after it had been completed there had been no evidence of recurrence and the patient was in good health.

After the completion of the services the surgeon consulted with various other com-

* Pfeiffer v. Dyer, 145 Atl. 284.

petent physicians in the locality, including the family doctor, and obtained from them expressions of opinion as to the value of the services. Such opinions ranged from \$2000 to \$5000. The surgeon finally concluded that \$3000 was a proper amount to charge and sent the husband a bill for that amount. The husband angrily refused to pay the bill, stating that he thought the charge should be \$300 but that he was willing to pay as much as \$500.

Being unable to come to a satisfactory arrangement with the husband the doctor wrote a letter to the patient herself in an attempt to see that the bill should be paid. In the course of the letter so written by the doctor he made the following statement:

Taking the very remarkable results secured into consideration, as well as the long continued treatment in separate stages, calling for unusual qualification for such work I felt that everyone would agree that a generous compensation was justified. I sent Mr. D—— a bill for \$3000 which is, I admit, a large fee and more than I would have asked on my own initiative, as I am distinctly a modest charger, but I did this on excellent advice and in the belief that it would work no hardship on you, as I know that Mr. D—— is a prosperous man who does not hesitate over such a sum when it concerns anything that pleases him.

The doctor being unable to obtain payment of his bill brought suit against the husband for the sum named by him and the action came on for trial before a jury and a verdict was rendered in his favor for the sum of \$3,000 with interest. An appeal from the judgment entered upon the verdict was taken by the defendant to the highest court in the State.

Upon the appeal the argument was made on behalf of the defendant that taking all the facts of the case into consideration it appeared that the plaintiff himself regarded the fee as excessive and that since he had never charged so large a fee for a similar operation in the past, he was not entitled to do so in this case.

The Appellate Court, however, determined that the verdict of the Trial Court was a proper one and affirmed the judgment,

saying in the course of the opinion:

Appellant's able counsel in the second branch of his argument advances a somewhat novel

and startling proposition as to the fees of pro fessional men-that A surgeon, without any agreement as to the amount of his fee, may not recover a fee based on what other surgeons would have charged or think proper, which fee is admittedly more than his own customary charge for the particular services which would mean that a physician once having fixed his fee for a given service, never could increase it, or that the modest surgeon who has been a modest charger and who has attained great skill, could not in a proper case receive the fair compensation to which others also of high professional standing believe him entitled. We would hesitate long before subscribing to such a rule particularly in view of the services rendered by physicians to the afflicted without thought of compensation customary or otherwise, of which plaintiff's own experiences are we think a fair sample Pressed on cross examination to state his customary fee for such an operation as that here involved he said that in over twenty years experience in surgery he has performed the operation six times three times for nothing and in explanation added that over half of his professional work was This state of affairs the done for charity law must recognize that physicians should not have their services valued as you would com-modities in trade by a fixed standard, what would be a proper charge for the same services to a man fully able to pay would be excessive to a man of limited means and what would be willingly done for the indigent without thought of financial reward should be com pensated for by one who can afford to pay on the scale which doctors of repute measure as the proper one Only on such a basis can those who devote their lives to ministering to the human suffering in some degree be fairly paid As was said in the Levitan case (79

It is a matter of common information that physicians and surgeons do not regulate their charges by any fixed standard of pecumary value but to a certain extent base them on the ability of the patient to pay, and on that hasis more frequently than otherwise, perhaps are but poorly compensated"

Claimed Infection Following Diphtheria Injection

A two year old child was brought to the office of a doctor specializing in pediatrics for a routine examination The doctor found the child well but administered an injection of diphtheria antitoxin child was next brought to the doctor about six months later and no objective symptoms of any ailment were found He, at that time, administered to the child a so called Schick test injecting a test fluid by hypo dermic under the skin of the arm child was brought back to the doctor a few days later and at that time a reaction to the The skin was red about test was observed the site of the injection. As a further precaution against diphtheria another injection

of antitoxin was administered. Two days later the doctor was called to the home of the child and found evidence of a red throat accompanied by a fever. He gave a pre scription for said condition and called upon the child a few days later. At that time he found the arm swollen near the site of the second injection for diphtheria and applied wet dressings. The next day before he had an opportunity to call upon the child he received a telephone call at his office that his services were no longer required.

The next the doctor heard from the matter was when a law suit was instituted against him in which the charge was made that the last inoculation had been improp erly rendered and had caused the child permanent injuries A physical examination made on behalf of the defendant showed that there was a small round scar on the arm about the size of the head of a match which was claimed to have been due to an infection which followed the injection of the toxin antitoxin. The case came on for trial as a non jury case and attempts were made on behalf of the infant plaintiff to show that the defendant had fulled to take proper precautions in administering the injection to sterilize the arm and his instruments. The defendant testified that he had taken all customary precau tions At the close of the entire testimony judgment was directed in favor of the defendant

Redness following Diathermy Treatment

A middle aged woman called upon a general practitioner with respect to complaints of pain in the shoulder. He examined her and diagnosed the condition as neutritis and suggested diathermy treatments. He proceeded to administer such treatment to her applying one electrode to the shoulder and the other to her back. The duration of the treatment was ten minutes. A couple of days liter the patient came to the doctor and complained of a reddened spot on the shoulder. The doctor found that there was no blistering, applied salve and a dressing, and the patient went away.

The doctor never heard from the patient until a year later when she instituted an action against him charging him with having caused her to sustain a severe burn

The burn was apparently never any more serious than when the doctor saw it for when the case was placed on the calendar and reached for trial the plaintiff's attorney made no attempt to actually try the case and in due time the case was dismissed for failure to prosecute

Across the Desk

From the Rough and Ready School of Medicine

Suppose you are on a barkantine in midocean, half way from New York to Rio, with no surgical apparatus but your two hands, and one of the crew slips on the deck and "breaches himself," as the sailors say. What do you do then? Well, it seems from good medical authority that the proper procedure is to grab the sufferer by the ankles, drape him head downward over your back like a bag of meal, and shake him as a terrier does a rat. When he yells, "All right," let him down and tie him up with woolen yarn.

Maybe you will not find this method given in the books, or taught in the medical schools, but it is related in the Maine Medical Journal by a veteran physician of that State, a former President of the Maine Medical Association, Dr. Stanley P. Warren of Portland, who will celebrate his ninetieth birthday in September. He sets it down as told by the first mate of the barkantine Cromwell to the surgeon in the sick bay of the S.S. Dartagnan.

It Was "As Good as a Fight"

The injured sailor was found groaning in his bunk with a bunch in his right groin the size of half an orange. "I tried to push the damn lump away, but I couldn't do it, and it got so sore and ached so bad I sent for you," he told the mate. The mate recalled hearing the bosun yarning about a similar case, and summoned him. Yes, it was "three years ago when we was comin' out of London."

"Well, what did you do?"

"We shook him, Sir."

"The devil you did. Shook him?"

"Get onto the deck," said the bosun to Jack, "and I'll show ye."

He was barefooted as were most of the crew in that weather. So he crawled slowly out of the bunk and lay down flat on the deck. First the bosun pulled off Jack's trousers, then he backed between his legs and grasped each of Jack's ankles with his

strong, calloused hands. Next he pulled him up from the deck with his legs straddle of his own neck. It was as good as a fight to see the bosun cursing and straining with Jack hanging down his back, and Jack himself groaning with pain, struggling in the grasp of the bosun.

"Hold hard, damn your eyes," yelled the bosun, and slowly and carefully lifted Jack up, then shook him up and down. He yelled but the bosun only said, "Are ye all right now?"

"Just the same," said Jack.

The bosun gave him another shake and Jack gasped out, "All right. Let me down."

We all heard a noise like a rush of water through the hawse pipe, and when Jack got onto his feet the bunch was gone.

"Git Some Doctor Swab to Fix Ye Up"

"Now," says the bosun, "we must batten him up so the breech won't come again. Steward, get Sails to come here." Presently Sails appeared. "Has you got a skein of woolen yarn?" "Yes," says Sails, "I got a big hank of yarn at Cork last v'yage to mend my stockings." "Cut away and get it." The bosun took the skein and separated it into two equal skeins which he looped together and pulled the loop tight.

Then he made Jack lie down on the deck again and put the yarn around his body with the knot of the loop across the place where the bunch had been. Next he pulled the yarn tight around Jack like a belt and fastened it at the back with a bit of spun-yarn.

"That feels good," said Jack, "and I guess I am all right now."

"You will be," says the bosun, "so long as you wears the yarn until we gits ashore where ye can git some doctor swab to fix ye up with a rigular stopper."

Jack had no more trouble with his side because he wore the yarn belt night and day until we reached Rio, where he went to the hospital and was fitted with a proper "stopper," as the bosun called it.

"Discharged Cured"

NO ONE REALIZES RETTER than the skillful physician that the patient is much more than a mere collection of organs, and that he is not restored to health at the instant when the organs start to resume their normal workings. This important fact has been seized upon by Dr. I. Seth Hirsch and deftly expressed in clay in a statuette entitled "Discharged Cured." Dr. Hirsch is an expert roentgenologist, and is used to seeing through things, and he sees through the transparent fiction that the patient is cured just because his temperature and pulse have stopped cutting capers. The pitiful figurine of the "cured" patient is used as a cover picture by the Roentgen Economist. Its editor remarks:

Dr. Hirsch in this piece of art expresses the incompleteness of some of our medical service He has picked up the discouragement, the mus-cular and mental weaknesses, the general inability of this patient to cope with the problems of the world

The patient has been discharged as cured; but the carriage, facial expression and general appearance of the patient shows that, while there may have been sufficient improvement in pathology to discharge him and get his bed for another, he is not cured

The artist here expresses that a human being is made up of body, mind and spirit; and that in this case the patient is facing the world again with an incomplete restoration of bodily function and an absolute need of further service to mind, spirit and economic status.

Medicine is more than a science; it is an art. The physician treats not only the discase; he treats the patient. The disease may be gone, but is the patient well? Here is at once the perplexity and the fascination of medical practice. If medicine were an exact science, a robot could do it, and socialized medicine would be possible and reasonable. but it is not. It is the study of a complex individual, body and soul, by the physician, who brings to the case the art and skill matured by years of experience with many other human lives. That is why the relation of doctor and patient must always be personal. Our medical socializers, trying perhaps to be humanitarian, would make medi-



I. Seth Hirsch cine not more human, or humane, but more dehumanized, and no doubt in some cases. under political institutionalism, inhuman,

Gangsters Attacking Doctors

THE RECENT REPORTS OF ATTACKS ON doctors in New York City, lured out on fake night calls for that purpose, are echoed

from Chicago, where the thugs are said to consider it a clever racket. A few months ago, in fact, a respected and valued member

of the medical profession in Chicago was brutally murdered by a gang of hoodlums, and several others have been the victims of "stick-ups." The members of one gang of degenerate youngsters confessed that doctors were their favorite victims. "Doctors are a cinch," the ringleader told the police. "Doctors always come when they are called, and they never mind where they are told to go. Easy to get them to go to the sticks and way out in funny places. We could do 'em up good there."

Which leads the *Illinois Medical Journal* to quote the motto: "Tonjours pret et toujours fidele," Always ready, always faithful. The doctors "are a trusting, credulous
crew," it remarks, "with hands ever eager
to aid, ears ever open to hear, and feet ever
waiting to rush to the help of humanity.
Doctors are always on the job. Where need
is, there is found the capable, conscientious
physician." So Dr. Silber C. Peacock left
his home, his wife, his baby daughter, and
the prospect of another expected child, to
answer a fake summons to help a "sick
child," and next afternoon his murdered
body was found in an isolated neighborhood.

A Martyr to Medical Ideals

A cynical sequel was that, instead of being praised for his unquesting response to the call of duty, he "was by intimation accused of practically every unseemly action in the calendar, from malpractice and mayhem to illicit intrigue and actual dishonesty," while "the heartbroken family and friends were spared neither inquiry nor insult." The only ones to stand staunch and true were his own medical confreres. They offered a reward for the apprehension of the murderer, and "not for an instant did their faith waver." Their faith was rewarded. Gangsters arrested for another crime were identified by medical victims of hold-ups, and a quick-witted police-officer snapped: "What about the Peacock murder?" One of the gang paled, the cue was seized, and confession followed. Now Dr. Peacock is recognized in his own city as a martyr to the ideals of his profession: "Always ready, always faithful."

Who Is to Blame?

Well, who is to blame for the saturnalia of thuggery which is taking its deadly toll even of physicians on their errands of mercy. No one, probably, can speak with

more authority on this point than Mr. J. Edgar Hoover, chief of the G-men. He says. for one thing, that the neglect of our children's training is letting them grow up into lives of crime. The average years of the gangsters who killed Dr. Peacock were below the voting age. The doctors, then, clearly have an interest in child welfare and right moral training. "We find," said Mr. Hoover, in a recent address, "these children committing almost 1,000 murders every year; we find that there are tens of thousands of burglaries and larcenies perpetrated by boys and girls who in any other generation would have been under the discipline of vigilant parents. This is an undeniable indictment of the American parent today."

Again, we read in various medical journals around the country how hard it is to get the doctors to take an interest in political affairs, or even to take the trouble to vote, and at the same time we are told in another address by Mr. Hoover that gangdom is allowed to flourish by its alliance with political corruptionists. Here is reason enough for the doctor to help clean up home-town politics, if needed. Mr. Hoover declared flatly in a speech before the D. A. R. in Washington that if every incumbent of public office in the United States were fingerprinted and records of law violation were spread before the country in a "single summary" the results would "amount to a scandal which would rock the country." Mr. Hoover told the D. A. R. members that there were 150,000 murderers roaming at large throughout the nation, and asked them to apply the spirit of their forefathers in a war against crime and "crime-affiliated politics."

Forced Into the Fight

It would seem that we have a sickness abroad in our fair land that is not of the body, an epidemic that ranks with the worst plagues of history. The doctor might leave it to the law enforcement authorities and pursue his quiet path of healing the sick, but like all epidemics, it lashes out viciously at those who would ignore it and leave it alone. The doctor is forced into the fight, if his midnight errands of succor are to be safe. No one can read Mr. Hoover's statements without feeling a call to arms. As we read in a press report, Mr. Hoover said that statistics showed that within the life-

time of every one alive today 200,000 persons will commit murder and more than

300 000 persons will be murdered

Mr Hoover then detailed his theory that crime and politics are allied and that "law enforcement has been hampered, hamstrung and strangled by the blood caked hand of crime affiliated politics" He said

"This political alliance with crime exists in State after State, municipality after municipality. It halts the policeman, it halts the law-enforcement officer, even as he reaches for his gun and holds him there, a target for bullets of the coward he has been attempting to arrest

"It stalks into our courts, brushing aside indictments trials and even convictions with a wave of the hand. It enters our penitentiaries, swinging wide the heavy prison gates for men who otherwise would have paid their debt to society in punishment for crime

"It condones nonfeasance in office and provides actual malfeasance. It supports bribery, perjury and gangdom, and it has been known to place more than one ex-convict upon the force of a police department"

Is it enough for the medical profession to patch up the wounded and submit tamely to the outrages of our criminal army-or, as Mr Hoover well calls them, "rats"? The doctors are 'always ready" and "always faithful," but there is also the good old Scotch motto 'Nemo me impune lacessit!'

Books

Books for review should be sent directly to the Book Review Department at 1313 Belford Avenue Brooklyn N 3 Acknowledgment of receipt will be made in thise coloring and deemed sufficient notification Selection for review will be based on ment and the interest to our readers

RECEIVED

A Quarterly of International Clinics Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery Neurology, etc. Volume 1, 46th Series, 1936 Edited by Louis Hamman, M D Octavo of 314 pages illustrated Philadelphia, J. B. Lippincott Company, 1935, Cloth,

Bee Venom Therapy Bee Venom, its Nature, and its Effect on Arthritic and Rheumittoid Conditions By Bodog F Beck, M D Quarto of 238 pages New York, D Appleton Century Company 1935 Cloth, \$5.00

Post Graduate Surgery Edited by Rod-ney Maingot FRCS Volume 1 Quarto York, D Appleton Century Company 1936 Set of three volumes, cloth, \$45 00

An Introduction to Surgery By Ruther-ford Morison, M.D. and Charles F. M. Sunt, M.D. Third edition. Octavo of 367 pages, illustrated Baltimore, William Wood & Company. 1935. Cloth, \$5.00 Lectures on Diseases of Children. By

Robert Hutchison MD Seventh edition Octavo of 452 pages illustrated Baltimore, William Wood & Company

REVIEWS

The Story of Medicine in the Middle Ages By David Riesman, M.D. Octavo of 402 pages, illustrated New York, Paul B Hoeber, Inc. 1935 Cloth, \$5 00

The Middle Ages are called the Dark Ages by historians While Drs Walsh and Fiske give excessive praise to the achievements made in medicine during the Medieval period, Drs Singer, Camac, and Pagel find little of value in its accomplishments and, in fact, stress its processes of retrogression Such an extreme diversity of opinion merits a thorough investigation

Dr Riesman, in his present work, subnects this issue to a careful analysis. On the one hand, he treats in detail the cruelty, barbarism and superstition of this historical period, at the same time, he does not disparage its achievements, won against great odds. It was an age when sectarian

intred was deemed a major virtue and toleration was condemned as a heresy and a crime

Probably the greatest accomplishment of the Middle Ages was the founding of the universities However, this era is also deserving of glory for it saw the organization of hospitals and the development of nursing While the actual additions made to the fund of medical knowledge were not proportionate to the time elapsed, nevertheless credit must be given for the preservation of Greek. Roman, Arabic, and Jewish tracts, without which the progress of medicine and culture in general would have been seriously hampered Full praise is accorded Arabic medicine for its discoveries in chemistry and dietetics, its minute descriptions of certain diseases and its development of newer medications in the vegetable group

The alchemists failed to find the Philosopher's Stone; but they discovered many useful chemicals, including antimony, bismuth, phosphorous, zinc, volatile oils, compounds of mercury and strong acids. Surgery was less hampered by Scholasticism than medicine. Slowly and steadily, with the development of a more tolerant attitude toward anatomical dissection, surgery advanced in several directions.

This book presents with great scientific accuracy an impartial review of the status of medicine and surgery during Medieval times. It is well written and beautifully illustrated. It is heartily recommended to physicians interested in the history of medicine.

WILLIAM RACHLIN

Public Health Administration in the United States. By Wilson G. Smillie, M.D. Octavo of 458 pages, illustrated. New York, The Macmillan Company. 1935. Cloth, \$3.50.

This is a book primarily for health officers and centers largely around administrative matters in the public health field. On the other hand, the practicing physician is concerned more and more with community health affairs as personal hygiene assumes greater importance in the control of communicable disease. For this reason books on matters of public health such as this volume are of present-day interest to the medical profession.

In the discussion of communicable diseases certain procedures are explained which at times the physician considers irksome but which are necessary for effective com-

munity control.

Eleven basic health activities in a modern health organization are described among which of particular interest to the practicing physician are child hygiene, mental

hygiene, nutrition and adult hygiene.

Finally, the section on public health programs explains the difference in health administration as conducted in rural and municipal areas; next it contrasts state and federal government health work. A chapter on "The Practicing Physician and the Public Health Department" gives many practical points of value to the profession.

ALFRED E. SHIPLEY

A Textbook of Laboratory Diagnosis. With Clinical Applications for Practitioners and Students. By Edwin E. Osgood, M.D. Second edition. Octavo of 585 pages, illustrated. Philadelphia, P. Blakiston's Son & Co. 1935. Cloth, \$6.00.

This is the second edition of a book which has proven its value as a practical text-book for students and general practitioners. The author has adopted the plan of reserving the first half of the book for the discussion of the more theoretical aspects of laboratory

tests, whereas in the second half of the book, actual technique is described. The presentation is direct and to the point and reads easily and pleasantly. In describing technique, the author has largely limited himself to those methods which he has found satisfactory in his extensive laboratory experience. The book has been brought up to date with a discussion of such tests as Paul and Bunnell's test, the Friedman test, etc. This book deserves unqualified recommendation. ALEXANDER S. WIENER

Diseases of the Thyroid Gland. By Arthur E. Hertzler, M.D. Third edition. Octavo of 348 pages, illustrated. St. Louis, The C. V. Mosby Company. 1935. Cloth, \$7.50.

This third edition has been completely rewritten. The type, the paper, the illustrations and the entire make up of the book are superb. It is dedicated to Henry S. Plummer for the great service he has rendered goitre surgeons.

The author does his own thinking and never hesitates to exprss his opinion even when it differs from commonly accepted

theories or facts.

His style is simple and direct and he has the happy faculty of clothing what might at times be a dry subject in charming language. Some of his philosophic observations are extremely humorous.

Speaking of the fear that iodized table salt might do harm he says "The amount seems to me to be quite incapable of harm to the persons using the salt and it helps the salt makers."

"The small boy with jelly on his face is not interested in the topography of the pantry." "The majority of operative failures come from trying to cure family rows by removing a simple colloid goitre."

Under symptomatology he writes "With much travail and lamentation and with the alleviations of the hot water bottle they achieve a college course, often with high honors, only to drop exhausted in the end under the weight of their diplomas."

The final quotation has a world of cynicism and humor combined "The surgeons here wear no masks but they keep their mouths shut. With practice this can be done

without pain."

All the chapters are interesting. The one by Doctor Chesky on the Hospital Management of Goitre Patients is a valuable one. Those on Anatomy and The Technic of Operations may be especially mentioned.

This volume is not an encyclopedia of all knowledge of goitre but it does cover almost all the important phases of the disease. Both the surgeon and the internist will benefit by reading this book and will have an enjoyable time doing so.

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(Continued on Classified Page)

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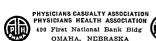
535,062 03

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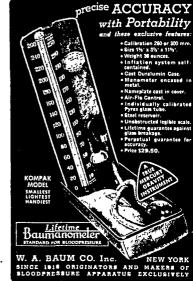
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Looking Forward to Camp (Continued from School Page)

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Travel and Resorts

Pack Up and Go!

If it were only as easy as that! But getting away is not such a simple matter. It requires weeks of planning, discussing, and perusing of travel literature. It takes the entire board of directors (the family) to decide the where, which and how of vacationing—and perhaps who is going.

Sometimes Dad's left completely out of the picture, at least as far as

"going" is concerned, but just because business detains him is no reason that he can't sit in and vote his family their greatest vacation year. After all, in a majority of cases, it's Dad's check that is the magic carpet which transports the family to vacation land.

So we recommend that the head of the family prepare himself for dictating or suggesting (depending on his status in the family circle) by carefully scanning these pages.

Most of the places advertising, will permit your spending weekends with the family at least, if you are unable to get away for a longer period. There is Bermuda, not too far away; Atlantic City for which little need be said; Canada, our neighbor to the North; the mountains of New England; and many other places not quite as well known, but deserving of your consideration nevertheless.

Of course Europe is bound to be popular this year, and if time is going to hang heavy on your hands this summer, England, Germany, France, Austria, and Switzerland will furnish you with all the entertainment and sightseeing that you could wish for.

The world is yours-take the most of it!

Air-Water Cruises-the Newest Thing

Sponsors of the first planned air-water tours of South America, the Grace Line and Pan-American Grace Airways report a steadily growing popularity with travellers in this new way of seeing a maximum of the southern continent in the minimum of time.

These tours vary in length from three to five weeks and are arranged flexibly so as to meet nearly any holiday time allowance. Either the Santa Clara or the Santa Maria sails every two weeks from New York on the first lap of one of these extraordinarily comprehensive tours of Latin America.

Panama, Colombia, Ecuador, Peru, Chile, and Argentina are the countries visited and the opportunity to fly over some of these offers a most unusual chance to really see a greater



The World

portion of the delightful countries of South America.

Fares are exceptionally reasonable for such a large return—running from \$495 to \$1190.

Vichy prepares for New Season

Vichy, the famous French Spa on the River Allier is preparing to welcome its 1936 visitors, and the beautiful Parc des Sources and Parc de l'Allier are fresh with the new green of the Chestnut trees and the colors of the flowers.

Although the new building of the Callou Baths remains open all year, and the bottling works and "Pastilleric" also operate the year round, with the reopening of the Grand Thermal Establishment and the Sporting Club, of big hotels, and with music once more sounding in the Casino and under the trees, one gets the impression that each year he or she witnesses a renaissance.

Every year sees new improvements. Since the opening of the Callou Baths, a model of their kind, the Grand Thermal Establishment has been so enlarged and improved that it seems almost an entire new construction. Its special services, such as the Mecanotherape Institute and the mud treatments, are well patronized, while the famous Vichy underwater massage, the Vichy douche, and other treatments to revitalize sluggish livers, attract their thousands yearly.

The new third class bath down near the river, and a great recreation and physical culture park for children with all sorts of attractions, are among new constructions now practically completed.

Sports always begin early in the season at Vichy. Tennis and golf are especially good in the spring months, and the courts and greens are in perfect condition.

Belgian Doctors to Visit Montreal

The Canadian Pacific is sending a liner to Antwerp to pick up members of the Belgium Medical Association coming to Montreal for their annual convention in July.

The Montclarc on her eastbound trip from Montreal, July 4, will go to Antwerp after calling at Havre and Southampton, reaching there July 14. She will make a quick turn around, embarking Canada-bound passengers the same day and sailing the same evening.



of every primate back to St. Augustine; lovely little Wells; noble York Minster; St. David's; Cashel, Cork and Melrose . . . glorious cathedrals and abbeys of Great Britain and Ireland steeped in thrilling history and tradition? • Who's for medieval castles and for-tiesses? Then see the Tower of London, Edinburgh, Caernarvon and Blarney Castles, all breathing the spirit of the Medicval Ages-scenes of dashing romances, sinister plots and vivid life that Time and History will ever remember! Unique architecture, works of art and treasures that took a thousand years to create! • England, Ireland, Scotland and Wales are brimming full of grand surprises. Everything different, unusual and unexpected. World-famous trains and swift cross-Channel steamers whisk you luxuriously wherever you want to go. Fishguard Rosslare, Holyhead-Kingstown, Stranraer Larne, Heysham Belfast be-tween Great Britain and Ireland; via Harwich and the Hook of Holland and English Channel ports to the Continent. . Come on, let's go; it's inexpensive! Who's for Britain and Ireland? Are

For itineraries, literature, maps, etc., write Dept. B T. R. DESTER, General Traffic Manager

ASSOCIATED BRITISH RAILWAYS, Inc.
551 Fifth Avenue, New York
or your own tourist agent





Associated British Railways Inc.

Empress of Britain Resumes Summer Service

Having completed her annual cruise around the world, the Canadian Pacific liner *Empress* of *Britain* has resumed regular trans-oceanic service for Cherbourg and Southampton.

But hardly settled to its accustomed run, plans as a result of previous success, are already being made for another world cruise starting from New York next Jan. 9.

As in previous years, the route followed will be across the Atlantic and via the Mediterranean and Suez Canal to India and the Far East, spanning the Pacific to California, after which the liner traverses the Panama Canal by daylight en route to New York. At their journey's end the tourists will have cruised almost 31,000 miles aboard the Empress, exclusive of side trips, and will have been away just 125 days. They will have seen the Holy Land and Egypt, visited exotic Bali, tropical islands and great cities, crossed and recrossed the Equator, wandered through temples and gardens in China and Japan and absorbed the color and atmosphere of the many historic places which have long been a magnet for world travellers.

The Empress of Britain's ports of call will be: Madeira, Gibraltar, Barcelona, Monaco, Naples, Athens, Haifa, Port Said, Suez, Bombay, Colombo, Penang, Singapore, Bangkok, Batavia, Semarang, Bali, Manila, Hong Kong, Shanghai, Chinwangtao, Beppu, Kobe, Yokohama, Honolulu, San Francisco, Los Angeles, Balboa, Cristobal and New York.

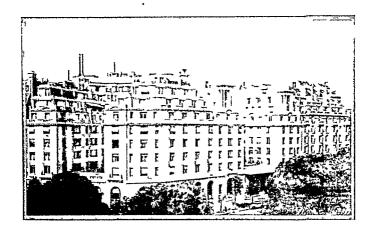
Sightseeing excursions are conducted from each port and many optional trips of varying length have been arranged.

Cruising the Great Lakes

If you're looking for a cruise this summer, it need not be to "foreign" ports. There is a section of our own country, storied and redolent with our own historic past, that provides travelers all the thrills of cruising to foreign lands. It is the Great Lakes district, our own inland waterways—2,230 miles of sparkling water travel that constitutes a memorable voyage for even the most seasoned traveler.

The liners that ply this route are splendid vessels, with commodious accommodations, incomparable cuisine and courteous service. From their decks you may view an ever changing scene of beautiful shoreland, historic cities and the wide expanse of waters that have ever played a part in the progress

(Continued on page xxvii)



A Hotel of Distinction and Charm Affording Every Comfort to the Discriminating Traveller

The Restaurant and Bar Reflect the Glamour and Gaiety That is Paris.



The GEORGE V PARIS.

Cable Address: Georgeotel-Paris

The Sea Is A Great Doctor, Too!

A COUNTY OF THE PROPERTY OF TH

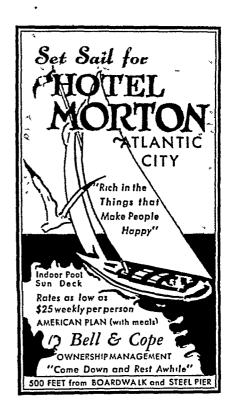
The Traymore RE-CREATES! The very atmosphere, the quiet foyers, large sleeping rooms, broad sun decks, the outdoor sports and solarium, the Health Baths and the cuisine-are ALL uplifting! Rates from \$5 European-with meals \$8.

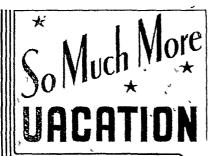
The



BENNETT E. TOUSLEY, General Manager

Surramonamonamonamonamonal y





On the boardwalk you get the real sea breeze, you slip on your swim suit in the hotel-in a step or two you are on the beach . You can sit on the sun deck and watch the world go by, a gay, colorful world at play and it costs no more at the



C H LANDOW MGR

Hotel KNICKERBOCKER

\$6 00 up single, \$10 00 for Two Room, Bath, Meals Included

All private baths with hot and cold sea water

YOU CAN AFFORD THE BEST-

SPECIAL WEEK-END OFFER As Low As

Room, Bath, All Meals—Fri-day after Breakfast thru Sunday — or Saturday thru Monday.

Weekly Rates as low as \$27.50 per person, double.

at Colton Manor prices! Luxurious accommodations, delicious food, delightful atmosphere; sea water "Ship's Deck" baths. overlooking ocean. 250 Reservations. Rooms.

Booklet.

Finest Hotels Pennsylvania Ave. Paul Auchter, Mgr.

(Continued from page sxit)

of America. The shadows of past ages glide by . . . forests that sheltered war-painted Indians, bays that beckoned to LaSalle and his crew of hardy French explorers, forts where the pioneer and British Redecats made history to the tune of musketry. And interspersed with these associations of the past is ample evidence of stupendous modern achievement in the architecture and industry of the many ports of call.

You can, if you wish, arrange to go one way by water on the Great Lakes and return by rail. But since we are here concerned with cruises it is the complete nine-day Buffalo to Duluth Voyage that is of most interest. Incidentally, you can take your own car along on these cruises, using it whenever you wish

at the ports.

A Popular Tour

For motoring, one of the finest trips is along the well conditioned highway of 534 miles between Toronto and Ouebec.

From the thundering magnitude of Niagara Falls, on the Canadan side, to the bridal veil effects of Montmorency Falls, Quebec, 100 feet higher than Niagara, the motorist may span an area comprising the most interesting and historic in Eastern Canada, in a trip which could be made in two days but should be covered much more profitably in two weeks.

Long before General John Graves Simcoe, first Governor of Upper Canada, established the site of what is now the largest city in Ontario as his capital, the various Indian Tribes knew Toronto as "the place of meeting"; and such it has been ever since, being the "base of operations" for motor tourists bound north, west and east in the Dominion.

Along the route there are fine parks, drives, flower gardens, bathing beaches, golf courses, and desirable fishing spots. There are fortifications and other interesting historic structures to visit in addition to some of nature's most beautiful scenic splendors. Everywhere there are the things reminiscent of France and England, while the hotels where you will stay at night are undoubtedly criterions of hospitality, comfort, and service.

Here indeed is vacation, sightseeing, touring, and recreation rolled up in one.

Iceland a Land of Hot Springs

Strange as it may seem, Iceland is not the cold forbidding place you might expect from its name, says Mr. Elliot I. Liman, Cruise

(Continued on page xxx 111)



PRESCRIBE the nearby Maritimes—New Brunswick and Nova Scotia—for cool northern air with the tang of the sea and atoma of balsam and pine. Here is restful relaxation—romantic atmosphere—no hay fever. The Algonquin Hotel at St. Andrews-by-the-Sea, overlooks is ise-dotted Passamaquoddy Bay. Its spacious accommodations with unexcelled cuisine and service attract delightful, discriminating people, year after year. Likewise the famous Algonquin Golf Course, bathing in Kary's Cove, yachung, boating, trout or bass fishing and the gay Casino.

Or suggest a short seat trip to old Nova Scotia. At Yarmouth is thenew Lakeide Inn—only a short motor ride from Lobster Bay—angler's paradise for tuna and deep sea fishing. At quaint Digby is the Pinu Hotel, overlooking broad Digby Basin. Excellent golf, a glass-screened, salt water swimming pool, fishing, boating, motoring. At Kentville, the Cornwallii Inn is convenient to Evangeline's Acadia and Grand Pré. Hotel rates are attractively low-priced.

Rates — American Plan — Lakuida Inn, June 29 — Sept. 7 and Gorma ulli Inn full year), Single, \$6 byr dowle, \$5 perton. Final Hotel, June 27 — Sept. 9, Single, \$7 up; dowle, \$6 person. Algoratin Hotel, June 27 — Sept. 7, Single, \$8 up; dowle, \$7 person. Algoratin Hotel, June 27 — Sept. 7, Single, \$8 up; dowle, \$7 person. Stambip Service — New York-Boston to Yarmouth. Or by rail to St. Andrews—Saint John. Firry Service—Saint John, N. B. to Uplyh, N. S. Dominion Adhatuc Railway trains meet all ships. See your Travel Agent or any Canadian Pacific office including 344 Madson Ave. New York; and 22 Court Street, Buffalo.

CANADIAN PACIFIC HOTELS

VISIT CANADA - YOUR FRIENDLY NEIGHBOR

Directly on the Ocean

Manager of the Holland-America Line. As passengers on the Rotterdam North Cape Russia Cruise will discover this summer, the proximity of the Gulf Stream gives Iceland a delightfully mild climate.

Another unique feature of Iceland is that while the mountains are covered with snow for the greater part of the year, there are numerous burning sulphur beds and bubbling hot springs. Always ingenious, many Icelanders obtain heat for their homes direct from these hot springs.

Icelanders also use their hot springs as laundries, and it is not an uncommon sight to see housewives doing the week's wash with hot water supplied free by nature.

Iceland is only one of the many interesting points included on the Rotterdam North Cape Explorers Cruise. Other high spots will be four days in Russia, visits to seven northern capitals and the exploring of nine fjords.

World Golf Contest to Follow Olympic Games

For the first time in the history of the game, all nations in which this pastime plays an important part will have an opportunity next August to play at one time and in one place for international fame and trophics.

This contest will be held immediately after the Olympics in Baden-Baden, the famous resort in the Black Forest.

The event will be one of a series of competitions to which, upon initiative of the Reich Sport Leader, von Tschammer und Osten, followers of the three great non-Olympic sports, golf, tennis and horse-racing, have been invited, and all of which will take place in Baden-Baden. The golf matches will be under the management of the Deutscher Golf Verband (German Golf Association) on the 18-hole course of the Baden-Baden Golf Club, on August 26 and 27.

The cup which will go to the winning country has been presented by the Fuehrer and Chancellor, Adolf Hitler, a second prize by the Reich Sport Leader, and a third one by the Reich Governor of Baden. The players of the three winning teams will receive gold, silver and bronze medals respectively, together with a piece of plate presented by the Deutscher Golf Verband, which will also give special prizes for the best results over 72, 54, 36 and 18 holes.

The contest is a 72-holes medal play from

(Continued on page 1xx1)

PLACES for REST in the ISLES of REST

HOTEL LANGTON

Offering a wide diversity of entertainment and recreation fresh food products from its own extensive gardens and dairy farm as well as every as stance in making arrangements to give guests the maximum en joyment and satisfaction which vishing Barmuda Resonable tartifs. Write direct for further information and rates or consult your nearest authorized travel agent or J. J. Linnehen Suite 1230 R. C. A. Bldg Rockefeller Center Circle 7:5579





INVERURIE

Right on the waters edge. Splendid food and service A wealth of facilities for every sport you can imagine Fernace dancing to enchant ing music good times eshore and affoot and so reminiscent of an English Inn. Whether it sto relax or lead a gay life you'll find kindred spirits at the Inverurie. Apply direct to J. Edward Connelly Manager or your local travel agent Bermuda Holes inc. 500 5th Ave. New York N. Y. PEnnsylvanie 6 0655.

ELBOW BEACH

Bermuda's only beach hotel with the world's finest surf bathing providing the beneficial effects of sea and sunshine Beautiful surroundings conduciny to rest and relaxation. Perched high above the beach excellent accommodations delicious cuisine and attantive service. For information rates and reservations—your travel agent the hotel direct or for definite reservations write our New York Office 51 East 42nd St. MUtray Hall 2 8447.



SHERWOOD MANOR—by the Sea

Barmuda's exclusive resort by the sea for those desiring rest confort sports good food good beds fresh spring water and transportation to and from Hamilton a mile away at no extra cost. And for those desiring all these for the least possible expense Bathing boating tennis golf practice diancing—all on the premises. Mr. and Mrs. Sherwood is the name.—Dutchland Farms Store Saugus Mess and Sherwood Manor Bermuda.



And the second s

BELMONT MANOR

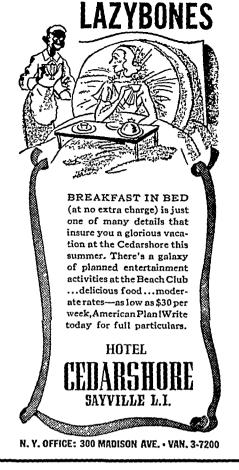
H gh above the islands of Hamilton Harbor set in a semi fropical park with breath taking views on every side Facilities for devotees of all sports. All conveniences for comfort. Maintaining best social traditions and cafering to discriminating best social traditions and cafering to discriminating and refined people. Finest cuisine. For information et — John O. Evans. Manager. Belimont Manor Bermude or authorized travel agencies. Bermude Hotels Inc. 500. 5th Ave. New York N. Y. Pennsylvania 6.0655.

THE CASTLE HARBOUR

Bermuda's most elaborate and beautiful summer hotal with its own beach and all sports facilities including Bermuda's loveliest pool. Unrivelled location facing Castle Harbour convenient to both Hemilton and St Georges. Moderate rates. Apply to Travel Agents or Robert D. Blackman. General Menager. Castle Harbour. Hotel. Tucker's Town. Bermuda. or New York representative 34 Whitehall St. New York.



BERMUDA HOTELS ASSOCIATION



Hotel Buckminster

Kenmore Square, BOSTON, MASS. adjoining Fenway Park and within five minutes' walk of Braves Field-Short distance from shopping district; Guests may secure baseball tickets at this hotel upon reservation; Private Garage — Parking space facilities — Strategic point for in and out of Boston-Handy to all centres of education-Permanent and Transient -Rates \$2.00 and upwards.

Daily Special Luncheon and Dinner 50c and Upwards.

J. P. DEL MONTE, Manager

HOTEL

EASTBOURNE

Pacific Avenue at Park Place ATLANTIC CITY, N. J.

Refined family hotel (Gentile Patronage) in the heart of the most exclusive hotel district: near amusements and Boardwalk; rooms with and without private bath; many with ocean view; American Plan; Appealing rates.

II. S. HAMILTON, Proprietor

GUARANTEED!

Absolute Immunity from Hay

Doctors can safely recommend The Balsams at Dixville Notch, N. H., as a spot where hay fever sufferers are guaranteed absolute immunity.

Beautiful hotel with fireproof accommodations for 500. 4600 acre estate. Every land and water sport. 18 hole championship golf course. The water is of exceptional purity (analysis on request). Food products from certified farms.

Rates from \$6 daily, including meals. Special September rates. For booklets, information or reservations address

THE BALSAMS

DIXVILLE NOTCH, N. H. In the White Mountains FRANK DOUDERA, Pres.

VISIT Nantucket Island, Massachusetts—30 miles out to see setts-30 miles out to sea

A Vacation at Siasconset, a quaint hamlet at the Eastern end of the Island, on a bluff overlooking the ocean, offers the lure of quiet restfulness to everyone; including teachers, artists and dreamers from every walk of life. All outdoor sports. Wide stretch of moors, Private Bathing Beach.

BEACH HOUSE

A Modernly Equipped 100 Room Hotel

attracts visitors seeking refinement, comfortable accommodations, food that is different yet wholesome. Rates from \$6.00 daily, including meals, with reductions to the company of the com tions for longer visits.

A search in a convenient library will reveal an interesting history of this historic and picturesque spot or our booklet will be sent on request.

OWNERSHIP MANAGEMENT

ATLANTIC CITY AT ITS BEST-The hotels **MADISON** and JEFFERSON



More than just a place to leave your baggagecozy rooms, excellent cuisine and service, sun decks, solariums, and the nicest people as fellow guests will make you feel that here you are truly enjoying the World's Playground at its best.

OWNERSHIP MANAGEMENT

For information, rates and literature, write-John R. Hollinger, Gen. Man. Eugene C. Fetter, Res. Man.



(Continued from page xxxxx)

scratch for all nations, each represented by a team of two amateurs (men). The length of the course is 4513 yards—standard scratch score 68.

The team with the lowest total score for the 72 holes medal play will win the "Grand Golf Prize of the Nations" outright. The cup becomes the property of the winning nation.

Entries can be made by golf unions, associations, federations or any other recognized golf organization. These should be forwarded to: Deutscher Golf Verband, Wiesbaden-Biebrich, Henkellsfeld, Germany. They must contain: Name, Address, Club, Handicap and Certificate of Amateur Status of each Player.—No Entry Fee. Only one Team may be entered by each Nation.

The representative players must comply with the National Status as defined by the Olympic Committee.

Until the close of the Entries (July 15, 1936) each nation may enter two reserve players besides their team of two players. The names of the finally selected team of two players must be in the hands of the Deutscher Golf Verband by August 15, 1936. After this date a reserve may only be substituted on grounds of illness or other similar energencies After the start of the competition on August 26 no player of any team may be replaced.

The competition will be played in accordance with the rules of the German Golf Association (Rules of the "Royal and Ancient") and the local rules of Badeu-Badeu.

The draw will be made by a Committee appointed by the German Golf Association. No two players of one nation will be allowed to play together. A new draw will be made for the second day (August 27th).

Travel Brevities

Robert D. Blackman, whose activities since entering the hotel business thirty-eight years ago have contributed so much to present-day high standards of management and service, has been appointed general manager of the Castle Harbour, the great hostelry in Bermuda over-looking the bay from which it derives its name. Mr. Blackman's career began early in this century when he became interested in resort management while holding a minor position at the Chalfonte in Atlantic City. Mr. Blackman has been connected with many other hotels and with hotel associations and was treasurer of the Explorers' Club for fourteen years.

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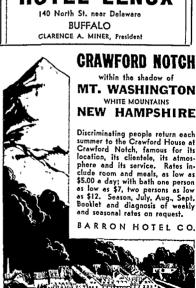


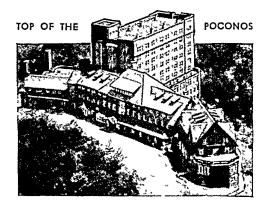
Most Medical Men

--prefer the Lenox because it is so convenient to the hospitals and medical centers. They also like its homelike atmosphere, large comfortable rooms, good food and fine service.

Note these Rates—Why Pay More?
Single \$1.50 to \$3.00
Double \$2.50 to \$5.00
Family Suites \$5.00 up.
Write for free A.A.A road map; also
our folder with map of downtown Buffalo

HOTEL LENOX





Modern country hotel, with its own 3000-acre estate, golf course and private lake high in the Pocono Mountains. Only three hours from New York and Philadelphia. Riding—tennis—archery -children's playground. Full entertainment program, including movies and dancing. Open the year 'round. Rates from \$31.50, with meals. Write for booklet, information. Herman V. Yeager, General Manager.

POCONO MANOR INN

Pocono Manor, Pennsylvania N. Y. Office: 300 MADISON AVE., VAn. 3-7200

- RADIO IN EVERY ROOM.
- AIR CONDITIONED LOBBY, DINING ROOM AND GRILL.
- FROM \$2.50 WITH BATH.

THE HOTEL ROCHESTER

IS THE FINE HOTEL IN ROCHESTER, N. Y.

VACATION

In the heart of the glorious Adirondack region where crystal lakes, splashing streams and evergreen mountains abound. Miles of delightful bridle paths; superb golf courses; and every other known form of entertainment and amusement sought after by discriminating vacation people. Write for free vacation folder C.

Chamber of Commerce, P. O. Chestertown, N. Y.,

2200 Feet Up in the **Mountains**

A restricted mountain resort only 3 hours from New York-yet with an altitude of 2200 feet. Cool and healthful climate. You'll sleep under blankets every night of the The INN enjoys a summer. splendid reputation for the excellence of its food and charming, congenial atmosphere. A vacation spot amid surroundings of great scenic beauty.

All sports-June to October 1st



SQUIRREL INN



Twilight Park HAINES FALLS, N. Y.

In the Rip Van Winkle Country.

Not a Sanitarium—

Mount Mansfield Hotel 4393 feet elevation

A healthful and scenic retreat on the top of Vermont's highest mountain. Famous for food and hospitality. A superb location offering health values of altitude and freedom from hay fever. For illustrated booklet and rates, write

M. C. LOVEJOY Box L Stowe, Vermont

NEW HAMPSHIRE

HOLDERNESS INN and Cabins Squam Lake, Holderness, N. H.

Delightfully homelike, good service, excellent food, modern appointments. Fishing, bathing, tennis and other amusements. Central location for White Mt. trips, Season May 30-0ct. 15. A real vacation land—120 miles from Boston, on Route 3. Send for Folder M.

OPPORTUNITIES

see Page XXI

For memory - lingering holiday,

week-end,

comeseason,

10

Restful nights — modern equipped, quiet and airy bedrooms. Healthful days —bathing, boating, fishing, golfing, etc.

The COLON Boardwalk On the CAPE MAY, N. J.

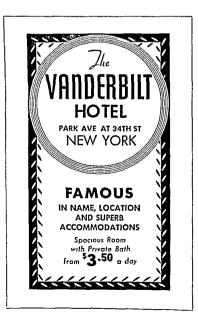
Fine meals - plenty of fresh foods with special attention to dietary requirements. Courteous service and moderate rates.

(Continued from tage xxx1)

OPENING of the Essex and Sussex at Spring Lake Beach, New Jersey, has been announced for June 27. An interesting program of social activities has been arranged for the coming season and will include dancing under the direction of Arthur Murray teachers, music by Jerome Twitchell's orchestra, keno, bridge, beach parties and bathing at the private beach, as well as countless other diversions

Doctors registering at the St. George in Bermuda, recently, are Dr. James W Mc Carthy of Rhode Island, Dr J. J. Lambert of New York, and Dr J B Forrester of Canada.

AT THE ELDOW BEACH, in Bermuda where Mr. Fred Twoli has arrived from France to assist in caring for patrons of this excellent hotel, the following doctors were listed as guests: Dr Joseph L Mountain, Dr. Julius Drucker, Dr. and Mrs M. Goldman, and Dr. and Mrs David Perla, all of New York, Dr. and Mrs Harry Bailey of Connecticut; and Dr and Mrs J. Nowell Manning of Massachusetts





A FAVORED RESIDENTIAL HOTEL

In the Smart East Fifties

SINGLE \$4.00. DOUBLE \$6.00.

2-ROOM SUITES \$8.00 DAILY.

For permanent occupancy one to five rooms (furnished or unfurnished) generous closets and perfectly equipped serving pantries. Special monthly and yearly rates.

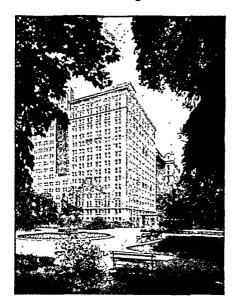
Newly redecorated Restaurant and Duplex Cocktail Lounge air-cooled. Excellent cuisine . few Minutes' walk from Grand Central, Rockefeller Center, the Theatre and Shopping Districts.



125 East 50th Street, New York City
William A. Buescher, Manager

OVERLOOKING EXCLUSIVE

Gramercy Park



Hotel Gramercy Park framed in the foliage of century old elms

Large cheerful rooms; transient or residential; excellent food; room service without extra charge; open roof deck; enclosed solarium; library; children's playroom; private park privileges.

Single Rooms \$2.50, \$3 and \$4

Double Rooms \$4.00 and \$5.00

Suites From \$6.00

Hotel Gramercy Park

52 Gramercy Park North

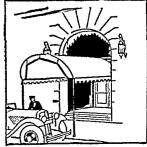
(East 21st St.)

Tel: Gramercy 5-4320

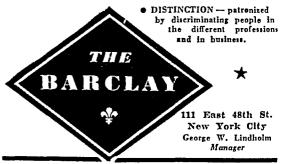
When Called to New York

for consultation or convention

You'll find the comfort, charm and privacy of a well-managed home awaiting you at THE BARCLAY, combined with



- CONVENIENT LOCATION—a step from Grand Central Station; on bus and subway routes leading to hospitals and medical centers; a short distance from Broadway theatres and the better men's shops.
- ECONOMICAL LIVING—parlor suites with serving pantry and electric refrigeration, \$10, \$12 and \$15... Single rooms, \$5, \$6 and \$7... Double rooms, from \$8.





NEIGHBORS!

If you want to be just around the corner from the famous Radio City, and only a few steps from the smart shops and theatres, then come to the VICTORIA, one of New York's newest hotels. Enjoy the finest of food too, and conviviality at the newest of bars, get the swing and rhythm of Modern Manhattan!



Tariff Reasonable



JOHN L. HORGAN - MANAGING DIRECTOR

Patronize your N. Y. STATE J. M. advertisers to enhance its value

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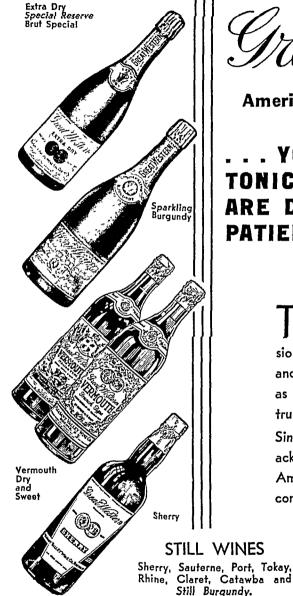
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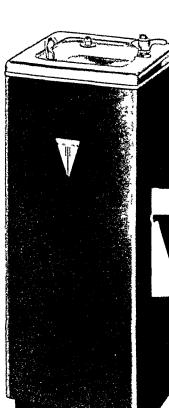
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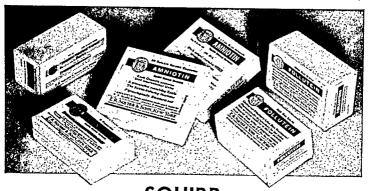
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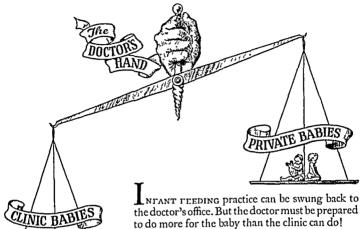
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OPHTHALMOSCOPY IN GENERAL PRACTICE

CONRAD BERENS, M.D., AND JOSHUA ZUCKERMAN, M.D., New York City

Ophthalmoscopy permits the study of the interior of the eyeball. It serves not only to detect local intraocular changes in the media and fundus but also to diagnose remote and general diseases (arteriosclerosis, syphilis, diabetes, nephritis, brain tumor, etc.). A clinical knowledge of the eye obtained by means of the ophthalmoscope is essential to every progressive practitioner of general medicine.

The importance of ophthalmoscopy can be appreciated when it is realized that the eye is the only organ in the body in which a living nerve can be visualized and studied and the functioning arteries and veins observed and followed to and from their finest ramifications. Because the optic nerve is a part of the brain, diseases of the brain may manifest themselves by visible changes in the optic nerve. The retinal blood vessels belong to the cerebral vascular system. Diseases of the circulatory system therefore may be evidenced by alterations in the retinal vessels.

It is important to have a definite knowledge of the appearance of the normal fundus so that the abnormal will be recognized by its departure from normal. A careful study of the normal fundus as illustrated in Figs. 1 and 2 is suggested.

Ophthalmoscopy may be performed in an illuminated room and without dilatation of the pupil (mydriasis) but it is facilitated by darkening the room, and rendered more accurate when the pupil is fully dilated. To dilate the pupil sufficiently to permit thorough examination of all parts of the fundus, instill three or four drops at three minute intervals of one of the following mydriatics:

epinephrin (1:1000), three per cent ephedrine, three per cent euphthalmine, or two per cent homatropine.

Direct ophthalmoscopy

To examine the patient's right eye by direct ophthalmoscopy hold the electric or battery handle ophthalmoscope in your right hand in front of your right eye and stand on the patient's right side. To examine the patient's left eye hold the ophthalmoscope in your left hand before your left eye and stand on the patient's left side.

Rotate the lens-carrying disk of the ophthalmoscope to zero. Hold the ophthalmoscope in your hand with your index finger placed against the lens disk so that you can rotate any lens into place without changing your position. Direct the beam of light from a distance of one meter into the patient's eye from the ophthalmoscope held closely against your eye. Look at the patient's eye through the aperture in the ophthalmoscope.

In the normal eye, a red fundus reflex is seen filling the entire pupil. Now hold the ophthalmoscope at 0.5 meter from the patient's eye and with your index finger rotate the lens-carrying disk clockwise, bringing a plus 4.00 lens into place and at closer range a plus 10.00 and finally still closer a plus 20.00 lens while you study the details of media (cornea, anterior chamber, lens, vitreous) to exclude any obstruction to your view of the fundus.

Interference with the red fundus reflex may be due to obstruction by opacities of the cornea or lens, by exudates in the anterior chamber, by pupillary membranes, or by a massive intraocular hemorrhage, abscess, exudate, or tumor in the vitreous.

Opacities of the cornea or lens appear black or grayish against a red back-To determine the location of these opacities direct the patient to look down, then up, while you observe the direction of the movement of the opacity. Opacities of the cornea (and of the anterior lens capsule) move down with the downward movement of the patient's eye, and up with the upward movement of the patient's eye. Opacities near the posterior surface of the lens move up with the downward movement of the patient's eye, and down with the upward movement of his eye. Normally the lens is transparent and therefore not visible. It loses its transparency, i.e., it becomes cataractous, as a result of interference with its nutrition. It may then be seen with a plus 10.00 lens in the ophthalmoscope held close to the patient's eye as one or more black areas occupying the pupillary region. These cataractous areas stand out against the red fundus background. Examine the lens for the presence of peripheral spoke-like opacities (called riders) arranged like the spokes of a wheel and for central (or nuclear) opacities (Figs. 3, 4). These are the two most common forms of cataract. Cataracts are most commonly caused by (1) senility: the most frequent cause after fifty years of age; (2) general diseases: diabetes, epilepsy, pellagra, poisoning by naphthalin, ergot; and

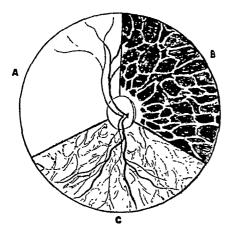


Fig. 1. Normal fundi. A, uniform stippled fundus; B, tesselated fundus; C, albinotic fundus.

recently dinitrophenol;² (3) faulty development: congenital cataract; (4) trauma in cases of direct injury to the eye which dislocates the lens or which tears the anterior capsule and permits the aqueous to penetrate the lens fibers, rendering them opaque; indirect trauma: excessive heat, sunlight or electric light; (5) eye diseases: choroiditis, retinitis, and infected ulcers.

The periphery or margin of the lens may be seen in cases of dislocation or subluxation of the lens and in patients with coloboma (incompleteness or defect) of the iris, whether congenital or acquired after iridectomy (an operation for the removal of a portion of the iris).

Vitreous. With the ophthalmoscope held close to your eye, rotate plus lenses into place by turning the lens disk from zero clockwise so that all depths of the vitreous may be studied. A normal vitreous is clear and transparent. To facilitate the examination of the vitreous the patient is requested to look quickly up and down and from right to left so that opacities in the vitreous may be stirred into motion and brought into view. The vitreous should be carefully studied in order to detect cloudiness, discoloration, and small and large masses.

1. Cloudiness. This may be due to inflammation of the choroid (choroiditis) or of

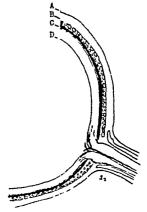


Fig. 2. Cross section of the sclera (A), choroid (B), pigment layer (C), retina (D) of the eye to illustrate that ophthalmoscopically the choroidal vessels are concealed when the pigment layer is normal; (2) The choroidal vessels are visible when the pigment layer is destroyed (chorioretinitis), thinned, or poorly developed (in blond people and in albinos).

the iris and ciliary body (iridocyclitis), or of the iris, ciliary body and choroid (inveitis), retinitis, inflammation of the optic nerve (papillitis), or distachment of the retina. A vitreous filled with dust-like opacities is frequently of syphilistic origin Vitreous opacities are often seen in progressive myopia (neirisightedness) and are the result of stretching caused by a low grade inflammation of the sclera and choroid (posterior sclerochoroiditis).

2 Discoloration A red discoloration in the due to a humorrhage into the vitreous A white or yellow reflex from the vitreous may be produced by a tumor (glioma), abscess of the vitreous, massive exudate in the retina, tubercle of the retina or choroid, metastatic inflammation of the eye (metastatic ophthilmia) or to a congenital defect (coloboma) of the choroid

3 Small masses in the attreous Vitreous opacities are movable and are seen with the ophthalmoscope as black dots, flakes or threads against a red background. Patients frequently complain that they see annoying specks which float before their eyes, particularly in bright light or in sunlight. These opacities are found in high myopia (nearsightedness), in inflammators conditions of the eye (choroiditis, uveitis, iridocyclitis, retunitis, pipillitis), and in trauma, detachment of the retima, synchysis semtillans, and asteroid hyalitis.

Ophthalmoscopic examination of the vitreous may reveal small glistening opicities which seem to fall when the patient glances quickly in any direction. This condition is called synchysis sentitlant. In asteroid hydritis (which resembles synchysis seintillans except that the glistening bodies are spherical) all the particles in the vitreous move en masse.

A foreign body in the vitreous may result from a perforating wound of the eyeball

The crystalline lens may be dislocated into the vitreous as a result of direct or indirect trauma to the eyeball

4 Large Masses in the Vitrous Glioma of the retina appears as a yellowish gray





Fig 3 Ophthalmoscopic appearance of a nuclear cataract (A), a cortical cataract (B)

mass in the vitreous of a child, usually under six years of age

Sarcoma or detachment of the choroid may be seen as a pigmented mass in the vitreous of an adult

A tubercle of the choroid or an abscess of the vitreous may appear as a white or yellowish mass in the vitreous

Large bands or strands of connective tissue which appear black against a red breckground are usually due to organized exidate of the vitreous, in both syphilitic and nonsyphilitic retunits. The lens in fetal life is nourished by the hyaloid artery lins may persist and appear as a dark strand against a red background extending from the optic disk toward the lens.

Fundus Just as a diagnosis in general medicine is made by observing any local deviation from the normal in conjunction with the general findings, so in ophthalmoscopy the details of the fundus are studied in contrast with the normal appearance and these details are correlated with the general clinical and laboratory findings before a diagnosis is made.

In this article we shall study the details of the fundus ophthalmoscopically, and point out the changes that may be found in the optic disk, the macula, the retinal arteries and veins, and in the retina and choroid

The correlation of the eye symptoms and signs with the general findings (blood pressure, albuminuria, hyperglycemia, Roentgen ray, Wassermann reaction, etc.) usually results in a complete picture which aids in the diagnosis

Ask the patient to look at a point directly ahead and on a level with his

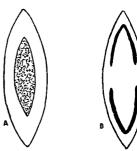


Fig 4 Cross section of nuclear cataract (A); of cortical cataract (B).

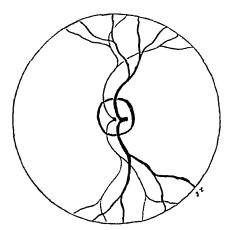


Fig. 5. Schematic drawing of vessels of fundus to demonstrate bifurcation (branching) of central artery and veins.

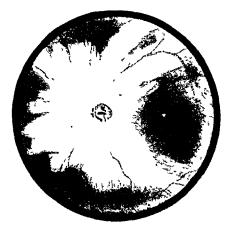


Fig. 6. Medullated nerve fibers.

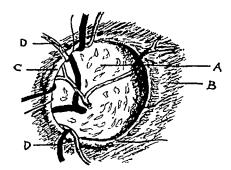


Fig. 7. Optic disk in glaucoma (schematic). The drawing illustrates the cup-shaped depression of the nerve head (A). The blood vessels (D) bend sharply outward as they emerge from the cup, the vein (D), disappears from view as it enters the glaucomatous cup. (B), retina (C) margin of cup.

eye. Hold the ophthalmoscope before your eye and as close to the patient's eye as possible while you look at the patient's eye through the peep hole in the ophthalmoscope. Rotate the lenses into place until the optic nerve head is brought into focus. In order to bring the details of the fundus clearly into view it is necessary to rotate into place a lens which will correct the patient's refractive error; e.g., if he is myopic a minus lens will be necessary; if he is hyperopic, a plus lens will be needed. If the amount of myopia is 10.00 diopters a lens of approximately minus 10.00 diopters will be necessary; if the amount of hyperopia is 3.00 diopters a plus 3.00 diopter lens will be required. It is unnecessary to have a technical knowledge of the value of plus or minus lenses or to know the patient's error of refraction or to observe what lens is rotated into place; it suffices to observe the fundus and rotate the lens disk until the optic disk and the vessels of the retina become most distinct.

As we look into the fundus, when the patient's eye is directed straight ahead, the first thing that comes into view is the head of the optic nerve, if no obstruction is present. It can be readily distinguished from the rest of the fundus by its circular shape, lighter color, and by the fact that the blood vessels emerge from it and divide into branches from that point. If some difficulty is experienced in locating the disk it may be readily found by following the course of the vessels of the retina toward the point at which they converge. They will lead to the disk (Fig. 5). The retinal arteries are usually arranged in the following manner: on the disk the central retinal artery divides into two branches, superior and inferior; each of these divides into two, superior temporal and superior nasal, inferior temporal and inferior nasal; each of these again divides into two, from which arise smaller branches and thus division continues to form the finest ramifications.

It will be evident that the arteries are named according to the area of the retina in which they lie. The veins follow the course of the arteries and are named in the same manner.

An artery can be distinguished from a vein by the following characteristics: the

arteries are lighter, straighter, narrower, and sharper in outline than the veins. The veins are darker, more tortuous, and wider than the arteries.

Optic disk. In studying the optic disk the following should be noted:

a Stee. It appears small in hyperopia and large in my opia, papillits and papilledema. Actually its horizontal diameter varies from 126 to 16 mm (a mean of 1.5 mm) (Salzmann) but when viewed through the ophthalmoscope it is magnified about thirteen times. The vertical diameter is a trifle greater.

b. Shape: It is normally circular but may

appear oval in astigmatism.

c Color: The disk is normally pinkish white and its temporal half is somewhat highter than its nasal half.

The disk is congested in eyestrain, iritis, uveitis, papillitis, retrobulbar neuritis, and in generalized passive congestion.

It is pale white in atrophy of the optic nerve, occlusion of the central retinal ar-

tery, and in severe anemia

d Center of the disk: Normally the center of the disk is usually seen as a funnel-shaped depression, lighter in color In disease, the than the rest of the disk disk (papilla) may be cupped or elevated The depression may be poorly marked. In papillitis it may be entirely absent and replaced by a forward protrusion of the disk In papilledema (due to increased intracramal pressure-intracranial tumor) the center of the disk may remain normal, but the margins are indistinct and the forward protrusion of the disk is marked depression may extend to the border of the disk in glaucoma

The lamina cribrosa which is seen as a seve-like area at the bottom of the cup in most disks may be distinct in normal eyes and unusually distinct in simple optic atrophy and in advanced glaucoma. It may be indistinct in some normal eyes but more indistinct in papillitis in which it is covered by edematous nerve fibers or by recent exudates and in the optic atrophy following papillitis (postpapillitic atrophy) in which an organized exudate may cover the lamina cribrosa

e. Disk margin: It is usually well-defined normally by a pigmented choroidal ring but may be normally indistinct in hyperopia (called pseudoneuritis). It is well-defined in simple optic atrophy and indistinct in secondary optic atrophy, papilledema, and papillitus In papilledema the poorly defined margin is associated with swelling and forward protrusion of the disk. In papillitus

this indistinctness of the margin of the

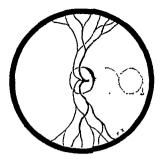


Fig 8 Schematic diagram to indicate the method of locating the macula which is two disk diameters temporal to the optic disk.

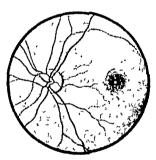


Fig 9 Semile degeneration and pigmentation of the macula,



Fig 10 Occlusion of the central artery of the retina

disk is usually associated with hemorrhages in the retina.

f. Disk vessels: In glaucoma the vessels at the margin of the disk appear broken where they bend backward into the cupshaped depression of the disk.

In papilledema the vessels protrude forward over the margin of the swollen disk.

The amount of depression or protrusion of the disk (or of the vessels) is measured by noting the difference in diopters between the strength of the lens (in the ophthalmoscope) required to focus a vessel on the retina and one on the disk. For greater accuracy, it is advisable to note the weakest minus lens used or the strongest plus lens necessary to focus these two areas. Three diopters represent one mm. of displacement, e.g., if a vessel on the retina appears distinct with a plus 1.00 diopter lens and a vessel on the disk with a plus 4.00 diopter lens, there are three diopters of difference in level-one mm. actual difference. If a minus 1.00 diopter lens and a plus 2.00 diopter lens are necessary there are also three diopters of difference (1 mm.).

The vessels on Obscuration of vessels. the disk may be completely or partially concealed by medullated nerve fibers (a congenital condition, which appears as white areas with feathery peripheral edges) or by an edematous retina in papillitis or

papilledema (Fig. 6).

Pulsation of the vessels on the disk may present. Venous pulsation is normal; be present. arterial pulsation is pathologic. pulsation may be found in acute glaucoma (increased intraocular pressure) (Fig. 7), exophthalmic goiter, aortic regurgitation and in marked hypertension or hypotension.

g. Disk surroundings: A halo may be seen around the disk in peripapillary atrophy (chorioretinal atrophy) and in the later

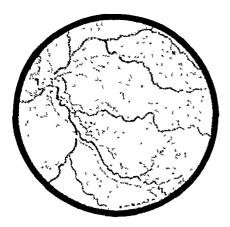


Fig. 11. The ophthalmoscopic appearance of the retina in diabetes

stages of glaucoma (glaucomatous halo) (Fig. 7).

A crescent may appear at the disk margin in normal and astigmatic eyes but it may be particularly marked in myopic eyes, due to stretching of the sclera and degeneration of the choroid, and of the pigment layer of the retina (myopic crescent).

Medullated nerve fibers may be seen, partially covering the retinal blood vessels a short distance from the optic disk or directly on it (Fig. 6).

The part of the fundus surrounding the optic disk (papilla) is subject to the same lesions which affect the retina in general (see retina).

Macula.—The macula is about two disk diameters temporal to the optic disk and on a level with its lower edge (Fig. 8). Normally, the macular region is somewhat darker than the rest of the fundus, and is devoid of blood vessels. Blood vessels surround and direct their ramifications toward the macula but do not reach it. A bright spot (the fovea centralis) is usually seen in its center.

Color of the macula: It is gravish and usually mottled in senile degeneration of the macula (Fig. 9), in central choroiditis, and in edema of the retina. It is black in pigmentation of the macula.

It is red in occlusion of the central retinal artery, amaurotic family idiocy, hole in the macula, hemorrhage in the macula, and in commotio retinae (edema of the retina surrounding the macula following trauma).

Surroundings of the macula: White lines radiating from the macula are seen in renal retinitis; white irregular areas are seen in diabetic retinitis. A white area with a central cherry red spot (representing the fovea centralis) is seen in occlusion of the central retinal artery (Fig. 10) and in commotio retinae.

The vessels of the fundus: The vessels of the retina are subject to the same changes that take place in those of any other part of the body, e.g., tortuosity of the vessels, thickening or thinning, increased permeability (with transudation), inflammatory changes in and about the vessel walls (exudation and perivasculitis), alterations in caliber, and interference with the blood stream (occlusion —Fig. 10—by thrombosis or embolism).

Note whether some of the retinal vessels are concealed. The vessels may be

hidden by a preretinal hemorrhage (situated between the vitreous and the retina), medullated nerve fibers, proliferating retinitis (strands of scar tissue which usually follow the larger vessels in the retina), papilledema (choked disk), or papillitis.

Note: Color of the vessels. They are dark in cyanosis, mitral stenosis, congenital heart lesions, detachment of the retina, and in tumor of the orbit. The veins are dark in thrombosis

of the central retinal vein.

Fullness The vessels are full in polycythemia, leukemia, varicosities of the retinal vessels, and in congestive glaucoma. Local dilatations are found in arteriosclerosis, syphilis, and diabetes. Empty or bloodless vessels are found in occlusion of the central artery and in

arteriosclerosis.

Course, caliber, contour, light reflex, and pulsation of the vessels of the retina Tortuosity and changes in caliber of the arteries occur in arteriosclerosis, diabetes, and syphilis. Compression of a vein at a point where an artery crosses it (arteriovenous compression) may be observed. This is indicative of hypertension. Normally the veins and arteries have a light reflex; that of the vem is much broader than that of the artery. In disease, this light reflex is altered. As previously mentioned, venous pulsation is not pathologic; arterial pulsation occurs in acute glaucoma, exophthalmic goiter, marked hypertension or hypotension, and in aortic regurgitation.

Fundus in general: In order to avoid overlooking lesions in the retina, it is necessary to study carefully the peripheral parts of the fundus. It is most convenient to follow the course of the vessels in all directions from the disk to the periphery instead of looking up, down, left, and right at random. Because the examiner has his own movements under better control than those of the patient it is usually advisable not to direct the patient to look in these directions but to look straight ahead. In order to see a part of the fundus that does not lie directly ahead of you, it may be necessary to move your head in a direction opposite to that in which this part lies, i.e., you examine the fundus through the pupil as you would a room through a keyliole.

Note the presence of hemorrhages in the periphery of the fundus. These occur in hypertension, arteriosclerosis, nephritis, diabetes (Fig. 11), tuberculosis, and

syphilis.

Exudates, fuzzy-looking white areas, in the fundus occur in diabetes, tuberculosis, nephritis, arteriosclerosis, and syphilis.

Pigment migrates into old hemorrhages and exudates. Pigment spots, shaped like bone-corpuscles, scattered throughout the periphery of the fundus occur in retinitis pigmentosa and in syphilitic retinitis.

Detachment of the retina may occur as a flat detachment in which the retina is somewhat cloudy, its level more anterior, and its vessels slightly darker and more tortuous than the healthy part of the fundus or as a protruding detachment which is seen as bluish-gray or greenish folds in wave-like fashion, the crests of which are grayish white (Fig. 12). These folds usually move with the movements of the eye. The blood vessels on the detachment are dark and tortuous, and course appears interrupted broken where they are hidden behind the folds of the detached retina. A retinal detachment can usually be seen during the examination of the vitreous with a plus 10.00 diopter lens in the ophthalmoscope.

Choroid. With the ophthalmoscope choroidal vessels are not seen in normally pigmented fundi but are visible when the layer of pigment epithelium of the retina (Fig. 2), which lies in front of the choroid, is scanty (e.g., in blond people and in albinism) or destroyed as a result of disease (chorioretinitis). The layer of pigment becomes atrophic and permits the vessels of the choroid to become ophthalmoscopically visible.

Conclusions

With few exceptions, diseases of the fundus are really only symptoms of general diseases and the changes in the

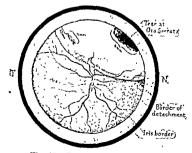


Fig. 12. Detachment of the retina.

fundus frequently precede signs in other parts of the body. Any disturbance of circulation or change in the composition of the blood may be evidenced by lesions in the delicate tissues of the fundus.

The general practitioner does not require a profound knowledge of ophthalmoscopy. It is necessary only for him to locate the optic disk and the macula, to know the normal appearance of the fundus, and to be able to recognize as pathologic the following:

- 1. Changes in the optic nerve disk: Whiteness of the optic nerve disk, elevation (swelling) or depression (cupping) of the disk, or indistinctness of its margins.
- 2. Changes in the fundus: The presence of white spots (exudates or depigmenta-

tions), black spots (pigmentation), opaque areas, hemorrhages, or cloudiness accompanied by elevation or folds (detachment) in the fundus.

3. Changes in the blood vessels: Alterations in the caliber and course of blood vessels, and arteriovenous compression.

4. Changes in the macula: White spots, pigmented spots or red areas (hemorrhages). or a hole in the macula.

It is necessary for the general practitioner to appreciate the fact that these findings usually indicate that a general disease is or has been present, and that thorough investigation and treatment of the patient's general condition may be indicated.

> 35 EAST 70 ST. 108 EAST 91 ST.

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THE NATIONAL HEALTH SURVEY

TREASURY DEPARTMENT PUBLIC HEALTH SERVICE WASHINGTON

Dr. Daniel S. Dougherty, Secretary Medical Society of the State of New York 5th Avenue & 103rd Street New York, New York

My dear Dr. Dougherty:

The field staff of the National Health Survey, carefully trained in gathering detailed, accurate information, has completed the extensive canvass of chronic and disabling illness conducted by the United States Public Health Service in ninetcen states.

When the study was initiated last fall, the program was discussed in the October 5 issue of the Journal of the American Medical Association. As announced at that time, there was special realization of the great value that would accrue to this scientific survey if supplementary facts could be obtained from physicans in cases of medically attended illnesses. Accordingly, when medical attendance was reported, permission to secure additional data from the doctor was requested of the family by the

field worker. Assured that the information would be regarded as confidential and would be used for purposes of statistical compilation only, families were cooperative in grantting the privelege of confirming diagnoses.

Appropriate forms are now being received by the attending physicians named by informants, and the Health Survey is asking the cooperation of members of the medical profession in this very important phase of the study. It will be appreciated if you will announce the confirmation plan to your Society, urging the desirability of having the forms returned as promptly as

For each form filled and returned the physician will receive a fee of twenty-five cents, a small compensation for the service he will render in executing the blank. By supplying the information requested he will contribute invaluable data to this study and assure the scientific accuracy of the results.

Very sincerely yours,

W. F. DRAPER Acting Surgeon General

May 9, 1936

NEW YORK STATE ASSOCIATION OF SCHOOL PHYSICIANS

The annual meeting of the New York State Association of School Physicians will take place at the Grand Union Hotel, Saratoga Springs, June 22 and 23, meeting in

conjunction with the State Department of Health. All school physicians and others interested in the school health program are urged to be present.

ENCEPHALITIS FOLLOWING GERMAN MEASLES

E A BAUMGARTNER, M.D., Newark, N.Y. State of New York Department of Mental Hygiene

Encephalitis following German measles is unusual. A recent report of a case in the Journal of the American Medical Association! is the only one found recorded in that journal for several years. The attack of German measles in this case was not serious, the encephalitis following was sudden in onset, and the patient appeared seriously ill.

The following case involving a pitient of Dr Ralph Sheldon of Lyons, N Y, was seen in the hospital only once, the

afternoon of April 1, 1935

II B a ten year old girl, had German measles on March 30, a typical rash slight fever slight indisposition in a child in school where some mild cases had occurred The child felt better that evening and the rash was disappearing. The next day about noon, she had, what the parents said was a convulsion. She was seen within a few minutes by Dr Sheldon She still had a slight rish, was extremely nervous, but was out of her convulsion. In about a half hour, she had another convulsion, her arms and legs were rigid and slie was taken to the hospital There was some twitching of her extremities The first day she had some projectile vomiting After some time, she was given an enema and some of the castor oil given earlier, was seen in the return from the enema. The next day (April 1), she was given orange juice, but she gagged easily A spinal puncture done that morn ing was said not to be under increased pressure and clear fluid was obtained

The patient had had scarlet fever some months ago. She was of normal size, normally bright in her class work and did average school work, but had complained in the past two weeks that she could not keep pace with the others. She had been going to school, had played as usual and did not complain of headaches nor of tiring.

On March 31, after the convulsion, the temperature was 1028° Γ, pulse rate was 120 The next dry with the child still in stupor, the temperature was 1014 After the spinal puncture the temperature reached 104 F, rectally, pulse was about 110, and 14 PM the temperature was 1036 F. The patient had received grain 1/14 of morphine on arriving at the hospital the dry before, grain 1/12 at 6 PM and grain 1/12 at 2 30 AM the next day, April 1

The spinal fluid, most of which was inadvertently lost, was brought to the laboratory where it was seen to be clear, gave a positive Pandy reaction and contained eighty-two cells per cu mm. A differential count of a dried smear gave three neutrophiles, sayy nine lymphocytes, and twenty-

eight red cells

The child was seen about 4 PM April 1 She was a well-developed and fairly wellnourished girl. She was lying in bed with her eyes partly closed, mouth open, breathing quietly, rate twenty-five. The skin was warm and moist The pupils were dilated notwithstanding the 1/12 grain morphine by hypo early that morning The eyes moved continuously from side to side pupils reacted slightly to light. The disks showed blurred margins and the vessels with slightly fuzzy edges were dilated. The mouth could not be pried open with a There was no jaw tongue depressor The neck was slightly resistive, clonus but later could be moved easily. The elbows were flexed so that the hands were near the face both elbows were definitely resistive at first then could be moved. When allowed to be free, they would again become flexed with the hands near the face and were again resistive. The wrists were freely movable, the fingers flexed and slightly resistive. No biceps or triceps reflexes were obtained. The abdominal reflexes were not obtained nor were kneejerks or Achilles reflexes present knees, slightly flexed, were, at first, somewhat rigid so that the leg could be raised with a hand under the knee After slight manipulation, the knees would relax somewhat and the ankles were freely movable There were positive Babinski and Oppenheim reflexes on both sides and a suggestive ankle clonus on the left The Kernig sign was negative. A diagnosis of encephalitis was mide, possibly following German measles, which was concurred in by the attending physician and hospital staff

The child looked seriously ill and a poor prognosis was given to both the family physician and family, although it was later felt that, if this were a sequel to German measles the child would recover quickly

and probably completely

What seemed to be unusual findings were the widely dilated pupils even if about fourteen hours had passed since morphine was given and the flexed resistive elbows,

fingers, and knees with freely movable wrists and ankles. Another peculiar finding was that the spinal fluid was said not to be under increased pressure. The following day (April 2), the temperature remained over 103 and reached 105 in the afternoon. She was in a stupor, frequently twitched, and was rigid. Tepid baths were given for the high temperature and liquids were given by a nasal tube. The next day, she was less rigid and had less twitching. eyes would follow moving objects. Liquids were taken poorly but the following day she took water better, was restless at times, and talked a little. The temperature reached normal and did not again rise. That night and the next day (April 5), she was restless, irrational at night and screamed. That night, she was again given morphine and had to be restrained. April 7, a week after her first convulsion, she cooperated well, and seemed normal. She was discharged from the hospital the following day.

From this time until April 25, the child acted normally. On that day, she had a fever of 102 and was nauseated, without any apparent reason. She was quite normal again three days later when seen by Dr. Sheldon and returned to school. She has been well since that time.

I am indebted to Dr. Sheldon for his notes and the hospital records of this case subsequent to April 1.

Cecil in his text book on Medicine

says nothing about encephalitis following measles. There is no statement on this subject in Osler's text and nothing in Holt's text on pediatrics. A recent report by Skinner¹ is of a similar case except the case here reported was in stupor a longer time. In both cases apparently the attack of German measles was not severe. It is interesting that these cases can appear so dangerously ill and recover so quickly and completely.

Peterman and Fox² discuss thirteen cases of encephalitis following measles. Only one of these cases had an onset About half of them with convulsions. showed an increased spinal fluid pressure and there was often an increased number of cells, usually the lymphocyte type. They discuss the possible etiology of the encephalitis and apparently believe it to be a virus activated by measles. Because a similar encephalitis may follow German measles, one would be inclined to believe that some toxic substance of the disease or the organism causing it may involve the brain in certain cases.

NEWARK STATE SCHOOL

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ACUTE INFECTIOUS MONONUCLEOSIS

Report of a Case with 42,000 Leukocytes

KENNETH R. McAlpin, M.D., New York City

Assistant Attending Physician, Assistant Professor in Medicine From the Department of Medicine, College of Physicians and Surgeons, Columbia University, and the Presbyterian Hospital

A few months ago I discussed thirtyone cases of acute infectious mononucleosis. After reading this paper, but before it was published, a patient appeared with what proved to be a more severe attack of this disease than any of those reported. This case is recorded with the kind permission of Dr. M. H. Dawson, whose patient he was.

Dr. A. M., age 35, a German biochemist, came to the Presbyterian Hospital complaining of drowsiness, muscle pains, fever and headache, for three days. These symptoms had been preceded by a sore throat for two weeks. He felt that "something must be wrong" as he found it impossible to work. He coughed but raised no sputum.

Family history was not important. He lived a normal life and used tea, coffee, alcohol, and tobacco in moderation. Two years ago weight 180 pounds—he has gradually lost twenty-three pounds, but is not undernourished.

He had scarlet fever and diphtheria as a child with no complications or sequelae. Severely wounded in the war but recovered completely.

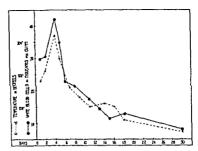
On admission his temperature was 101.2, pulse, eighty-four, respirations twenty, blood pressure 112/70. A well-nourished and developed German who looked rather "washed-out," but not severely ill. No respiratory distress or obvious discomfort. The scars of his wounds were apparent on the head and face. Eyes, ears, and nose

appeared normal. Teeth in good condition except for much repair. Tongue coated. Pharynx red and edematous. There was a tiny spot on the left anterior faucial pillar and a similar one on the right side. neck was not stiff, Glands; there were numerous non-tender nodes felt in the cervical and subclavicular axillary and inguinal region. The largest were about 1/2 x 1 cm. Lungs were resonant throughout with a few fine moist rales at the left base which disappeared after coughing. Heart not en-larged, sounds normal. Abdomen was soft and flat. No tenderness, liver not felt. The edge of the spleen felt four c.c. below the costal margin on deep inspiration.

The first blood count showed 32,000 white cells with eighty per cent lymphocytes. A day or two after admission the blood picture was: Hgb one hundred per cent (100% = 14.9 gm. Hgb.); r.b.c. 5,200,000; w.b.c 30,200; Neut, ten per cent (0-1-9); lymph, forty-one per cent; abnormal lymph. twenty-six per cent; mono, eight per cent; smudges fifteen per cent. The numerous abnormal lymphocytes and monocytes made an impressive picture but the absence of embryonal forms seemed to preclude leukemia. Many of the lymphocytes came in the class described by Downey as "leukocytoid." With hemoglobin and red cells normal we immediately thought of mononucleosis; this was confirmed by the agglutination of sheep red cells by the serum dilution of 1:128.

The Wassermann test was negative. In the throat culture streptococcus viridans predominated and no hemolytic organisms were seen. The temperature, as shown by the chart, continued to rise, and on the fifth day in the hospital reached 104.4. At this time the white blood cells were 42,000. We had never seen anyone so sick with mononucleosis and wondered if we had erred in our diagnosis. Should we expect any complications? Acute nephritis has been reported, but the urine never showed more than a trace of albumin and no casts were found. The temperature remained above 104 for a few hours and the next day, to our relief, reached only 103 and, as shown by the chart, came down steadily. The white cells fell rapidly with little change in differential count. The reduction in leukocytes roughly paralleled the drop in temperature.

The patient remained in the hospital for 20 days and made an uneventful recovery.



When seen three months after discharge he looked perfectly well with no nodes or spleen palpable; the blood count at that time was w.b.c. 10,000; neut. 53; eos. 12; baso. 1; lymph. 30; monos. 4.

It is hard to account for the presence of twelve per cent eosinophiles. So many are, I think, unusual after an attack of mononucleosis. We have no records that go over six per cent. This count was checked in a month and the differential remained practically the same except that the eosinophiles had dropped to six per cent. The rise in cosinophiles is hard to explain but at least it appears to have been only temporary.

Comment

In the paper mentioned above,1 I called attention to the fact that diagnosis was often puzzling. This certainly was true in this instance because when Dr. M. had a temparture of 104 and 42,000 white cells we were none too sanguine about our ability as diagnosticians. None of our other thirty-one patients had more than 25,000 white blood cells.

Summary

- 1. A case of infectious mononucleosis with a blood count of 42,000 is reported.
- The temperature reached 104.4F.
 The patient made a complete and
- uneventful recovery. 622 W. 168 St.

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Investigations at the University of California are reported as finding that bread

loses practically none of its vitamin B in the baking process.

STATE JOURNAL

OF MEDICINE

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Geo. W. Kosmak, M.D. Samuel J. Kopetzky, M.D. Nathan P. Sears, M.D.

Executive Office: 33 W. 42nd St., N. Y. Business and Advertising Manager....Thomas R. Gardiner

The Editors endeavor to publish only that which is authentic, but disclaim any responsibility for views expressed by contributors. Address all communications concerning the JOURNAL to the Editorial Office, 33 W. 42nd Street, New York City (Telephone CHickering 4-5570).

EDITORIALS

The Legislature Adjourns

In spite of the intense partisanship of an election year, the 1936 State Legislature forebore to inject politics to any great extent into its deliberations on medical questions. While a number of deserving measures favored by the profession failed of enactment, there is cause for deep satisfaction in the failure of any of the important bills opposed by organized medicine even to reach the floor. Compulsory health insurance, chiropractic, and the anti-vivisection act were all rejected in committee.

The defeat administered to several of the bills sponsored by the profession is not to be considered final or a rejection on principle. The lien bill protecting doctor and nurse as well as hospitals is an outstanding example. Although it enjoyed strong support, technical considerations barred its enactment. There is good reason to believe that next session will amend the hospital lien law to correct the present discrimination against physicians.

In the field of medical jurisprudence the 1936 Legislature has a distinct achievement to its credit. A long-standing evil promises to be eradicated—or at least lessened considerably—as a result of two enactments pertaining to psychiatric evidence. One attacks abuse of the insanity plea in criminal cases by providing for determination of the mental condition of questionable defendants by the court before or during trial. The other ensures genuinely expert opinion by setting up a panel of qualified alienists. If these statutes are honestly enforced, they should go far to answer the severe criticisms which the present system of psychiatric testimony has brought down upon both medicine and the law.

With election in view, most members of the State Legislature have returned home, where they will be busy with political fence mending until the fall. This is an excellent opportunity for physicians to establish personal contact with their legislators, with a view to determining their understanding of the profession's point of view and willingness to represent it faithfully.

"Truth in Advertising"

The twenty-fifth anniversary of the Truth-in-Advertising Movement sees many reasons for self-congratulation among publishers and advertising agencies. They are, nevertheless, so far from

anything remotely approaching their goal that the most optimistic must realize the need for stronger measures if their slogan is ever to become a fact.

While many of the grosser frauds of twenty-five years ago have been banished from reputable media, it is a regretable fact that there is still very little truth in medical advertising to the laity. The best that can be said for many of the "ads" that appear in newspapers, magazines, and over the radio is that they are merely exaggerated and will waste the money of the consumer without doing him physical harm. At worst they are definitely dangerous, whether due to the nature of the product they sell or because they delay necessary treatment—sometimes for both reasons.

It is possible to turn the pages of many large urban newspapers and find the advertisements of quacks who, in tricky phrases, imply that they possess quick cures for cancer, tuberculosis, and incurable diseases of the heart and kidneys. Leading radio stations broadcast exaggerated claims for laxatives and lend their influence to the sale of diathermy machines that are worthless or dangerous in the hands of laymen. It's still a long way to. "Truth-in-Advertising"!

Agencies and media must change their policies in two important respects before they can hope to wipe out fraudulent advertising practices. The criterion of truth must be positive and exacting, instead of including everything that is not an outright lie. In the evaluation of technical claims, as for drugs and cosmetics, expert counsel should be sought instead of accepting the assertions of manufacturers and distributors at their face value.

Organized medicine in all its branches stands ready to assist in this work of clarification and appraisal. The elimination of exaggerated and misleading medical advertising would be one of the greatest boons to public health that this country has known.

The Broken Needle

Every physician, regardless of which branch of medicine he practices, uses a hypodermic needle for the administration of drugs, and during the performance of certain surgical procedures. In addition, this instrument is used by nurses and interns presumably under the direction of the doctor. Despite all precautions, occasions do arise where a portion of the needle will break off and lodge in the tissues. This mishap has furnished the basis for many lawsuits charging malpractice on the part of the physician.

In New York State, where the number of such cases has been many, it seems unusual that in only two instances have opinions on the law been expressed by our courts.1 These, in the main, hold that where the customary (not unusual) skill has been employed, no malpractice exists provided that the patient has been told of the accident within a reasonable time and an effort made by a competent surgeon to remove the fragment except where such procedure would constitute a danger to the well-being of the patient. Where possible, the broken part should be extracted immediately but where this is not possible, the primary operation should be completed if its performance is in accord with good medical judgment. An endeavor to locate the needle should be made by means of the x-ray without undue delay. When the accident has occurred to a general practitioner, he should seek the services of a "skillful surgeon," Not to do this subjects the general practitioner to a charge of incompetency in addition to malpractice.

All physicians should familiarize themselves with the essential legal requirements pertaining to the accidental breaking of a needle introduced into the tissues. Even more important is the instruction of nurses and interns immediately to inform the doctor in charge when such an accident happens to them,

Benson vs. Dean, 232 N. Y. 52. Mandelbaum vs. Weil, 208 App. Div. 409.

He is responsible legally for their actions and they should be made to understand that any attempt on their part to conceal this accident places the physician in financial jeopardy.

The Outlook for Arrested Tuberculosis

A patient in whom pulmonary tuberculosis is considered as having reached the arrested stage must be symptom free, have a negative sputum, and present roentgenological evidence of regressive changes in the pulmonary lesion. This type of individual is considered fit to return to society and in many instances is able to resume an active status in the community. It is surprising, therefore, that so little information is at hand concerning the future of these arrested cases after they leave the supervision afforded by institutional care.

The report of Lawrence¹ included only thirty-two cases of pulmonary phthisis which were classified as arrested. the end of three years, three per cent of these had died and nineteen per cent suffered a relapse of the disease. more recent investigation conducted by Spector² is probably the first to confine itself solely to the fate of the arrested The study comprised a period of eleven years and embraced 289 cases. In general, seventy-six per cent of all were alive and remained well. Upon closer analysis of his statistics, however, the percentage of patients who remained fully recovered decreased considerably with the lapse of time following discharge from the hospital.

Of course many factors besides the disease itself must enter into the determination of whether or not an arrested case will suffer a relapse. These, while important, do not overshadow the influence of rest

and collapse therapy in the treatment of this disease. They have proven their value. Insofar as the prognosis for longevity is concerned, the earlier the disease is discovered and the sooner treatment is instituted, the greater is the chance for ultimate recovery.

CURRENT COMMENT

Writing of the Wagner Housing Bill pending before Congress, the editors of The New York Sun, under date of May 29, claim that: "The bill was cleverly designed to meet some objections of those who wish to keep Washington bureaucrats out of the real estate business. But the hazard of Federal regulation for housing is not simply a business matter. The record of governmental attempts to replace slums with better dwellings has already demonstrated that years may pass before any considerable number of slum families are housed in suitable buildings if Federal bureaus must do the job."

"The hospital, like the whole country, is facing an economic crisis which, even at the risk of retarded growth, it must survive unscarred, safeguarding its traditions.

"The dangers of extreme economic retrenchment are many and serious, but they are not as perilous as are the unbecoming ways of acquiring seemingly easy money for the purpose of increasing the hospital's income, through methods which tend to weaken the hospital's fabric. Specifically, hospitals should not enter into any profit yielding enterprise; trustees and administrators should be satisfied to heal the sick at a loss rather than to serve the well at a gain."—Dr. J. J. Golub writing of "The 'Business' of a Hospital" in The Modern Hospital of May, 1936.

"A BARE SUBSISTENCE WAGE, whether sponsored by some governmental agency or a private industry, certainly does not make for good health and cannot care for sickness for very obvious reasons. The medical profession shares with all other professions in requiring constant effort to maintain it to the highest degree of efficiency in the presence of changing conditions but this cannot be accomplished by placing its destiny in the hands of a bureaucracy, and making two jobs where only one formerly existed."—Excerpts from

^{1.} Lawrence, W. F.: What Happens to Patients Discharged from Tuberculosis Sanatoria. N. Y. Tuberculosis Association, Jan. 1933.

^{2.} Spector, H. I.: Prognosis in Arrested Tubercular Disease of the Chest, Vol. 2, No. 5, p. 22, May, 1936.

"The Social Aspects of Sickness" in The Weekly Roster and Medical Digest

"To come at the various agencies which have already shown their faces under the guise of Health Insurance, State Medicine, etc., this inevitable trend will require all the resources of the various medical bodies, both state and national. It has been noted that all the remedies applicable to the curing of economic ills are national in scope, therefore, our approach to these problems must be national in extent.

"Medicine cannot continue to flourish or advance or even remain in a healthy state if the medical men divide themselves * * * It is, therefore, absolutely essential that each qualified practicing physician enroll into organized medicine. It is also neces sary for each and every physician not only to join his County Society but to attend its meetings and participate in the adoption and the execution of promulgated ideas and suggestions * * * "—From the Bulletin of the Central Medical Council of Brooklyn

"Medical economics and the needs of patients both require the young doctor to give up the idea of specialization and de vote himself to general practice." Dr. Mil ton C. Winternitz of Yale University declared in an address to the graduates of the Long Island College of Medicine on June 2. We quote at some length from The New York Times' report of his address of "Dr. Winternitz, Anthony Brady Professor of Pathology in the Yale Medical School, discussed the relations of main as an entity and medicine as an entity and ways of 'combining both for their mutual benefit."

"'Man is not only a physical and psychic being' he said, 'but also a member of society These three phases are insep arable, each influences his conditioned re flexes. In the last ten years or so the principle of his individuality has been rather lost sight of We have built great hospitals, and medicine has been split into many small, specialized groups

"The doctor of the past—the general practitioner, the family doctor—has almost disappeared And with him the entity of the individual has disappeared."

"Dr Winternitz said that great medical institutions should not be confused with medicine itself, since they were merely 'implements' to aid medicine. Specialization, he asserted, had made it impossible for any one to know all of medicine today, to attain anything more than a 'broad view' of the field. Specialization had left many physicians knowing little of their profession as a whole, he added. 'Tractions of knowledge do not make for medical success,' he went on. Medicine's aim is to keep you well. It can only succeed in this only by unity in the field of medicine.'"

We quote in part from an article on "Propaganda of State Medicine" "The recent building of government hospitals for hospitalization and treatment of World War veteruns has even now proven to be an economic waste and of doubtful scientific value and procedure. This is state medicine and state medicine accepted with protest and without beneficial results. There is no question but that, try as the Army and Navy may, politics manages to stir up entirely too big a disturbance when it comes to control of these institutions for which the taxpayers pay plentifully and the veterans do not receive any unusual care By the very nature of things they cannot The government hospital situation is one of the best demonstrations of the burdens of state medicine Incompetency is not laid it the doors of these institutions but that is more because of the efficient medical service in the United States Army and Navy and Marine Medical Corps than because the government is running the hospital"-Dr Harry R Litchfield in the Bulletin of the Central Medical Council of Brooklyn

MISCHIEF WHERE LEAST EXPECTED

Some interesting cases of food allergy were related by Dr Walter Alvarez, of the Mayo Clinic, at the recent meeting of the American Gastro Enterological Association at Atlantic City He told of a business man who had attacks of drowsiness at his office or at the wheel of his car They were finally found due to the cream in his coffee An-

other mm going insane, and under psychiatric treatment recovered when put on a duet for hives A college student suffering from pain, apathy and dullness, became eiger and bright when he gave up eggs for breakfist Dr Alvarez confessed himself to have an abnormal sensitiveness to chicken Since he stopped cating it, 'life has been much easier'"

HOUSE OF DELEGATES

MINUTES OF THE ANNUAL MEETING

April 27 and 28, 1936

The 130th Annual Meeting of the House of Delegates of the Medical Society of the State of New York was held at the Hotel Waldorf-Astoria, New York, on Monday, April 27, 1936, at 10 A.M.

Dr. Samuel J. Kopetzky, Speaker; Dr. Daniel S. Dougherty, Secretary.

The House of Delegates THE SPEAKER: will rlease come to order.

1. Committee on Credentials

THE SPEAKER: The first order of business is

the report of the Committee on Credentials.

The Secretary: The Committee on Credentials finds no disputed delegations, and all those whose names are on our roll are entitled to vote.

THE STEAKER: The next order of business

is calling the roll.

THE ASSISTANT SECRETARY called the roll

by Counties.

THE SPEAKER: A quorum being present we will proceed with the business of the House.

2. Approval of the Minutes

THE SPIAKER: The first order of business is the reading of the Minutes of the previous

meeting.

THE SECRETARY: As these Minutes have been published, I move the reading be dispensed with and that they be adopted as published in the June 15, 1935, issue of the New York State Journal of Medicine.

Motion seconded and carried.

THE SPEAKER: I am going to ask Dr. Madill and Dr. Booth to escort a very eminent gentleman to the platform. This House of Delegates is honored in having as its distinguished guest, the Right Honorable Lord Horder.

His Lordship is going to speak to us formally upon other occasions and I simply want the pleasure of having him here and extending

to him the courtesy and greeting of this House.

LORD HORDER: Mr. President and gentlemen: I greatly appreciate your welcome this morning and I am very glad to be your guest. Although I have traveled further than most of you to this meeting, I have no speech to make as I am an honorary member of it, and not an official one, except that I would like to

wish you all success of your meeting.
The Speaker: Will Dr. Gordon Heyd escort the President to the platform? It is a great pleasure for me to greet here officially a man with whom I have worked and served for many years. I wanted him on the platform, but if the President will permit, before he makes whatever remarks he wishes to attach to his official report which is in print, I am going to ask the Secretary to announce the Reference Committees.

3. Reference Committees

Dr. Dougherty, Secretary: The Assistant Secretary will read them, Mr. Speaker.

Dr. Irving, Assistant Secretary: The Refence Committees are as follows:

Reference Committee on Report of the President: Chas, Gordon Heyd, Chairman, New York William W. Street, Onondaga Warren Wooden, Monroe Herbert H. Bauckus, Erie Guy S. Carpenter, Tioga

Reference Committee on Reports of Secretary, Council, Censors and Councilors: James R. Reuling, Jr., Chairman, Queens Albert E. Payne, Suffolk Richard H. Sherwood, Niagara Albert A. Gartner, Eric Henry Joachim, Kings

Reference Committee on Reports of Treasurer and Trustees: Terry M. Townsend, Chairman, New York William Klein, Bronx James H. Donnelly, Erie Walter D. Ludlum, Kings Marion K. G. Colle, Green

Reference Committee on Report of Legal Counsel:

George A. Leitner, Chairman, Rockland Willard H. Veeder, Monroe Clement J. Handron, Rensselaer George S. Towne, Saratoga Edward M. Wellbery, Seneca

Reference Committee on Report of Committee on Public Relations: Frederic W. Holcomb, Chairman, Ulster Robert B. Hammond, Westchester

Louis A. Friedman, Bronx Thomas M. Brennan, Kings Edgar A. Vander Veer, Albany

Reference Committee on Report of Committee on Public Health and Medical Education:

James H. Borrell, Chairman, Erie Alec N. Thomson, Kings Albert H. Aldridge, New York Robert L. Crockett, Madison Robert J. Reynolds, St. Lawrence

Reference Committee on Report of Committee on Legislation:

John J. Masterson, Chairman, Kings Louis H. Bauer, Nassau

Joseph C. O'Gorman, Erie Adolph G. DeSanctis, New York John J. Buettner, Onondaga

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Charles A Anderson, Kings
George W Kosmik, New York
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John L Bauer, Kings
Julius Ferber, New York
Edward T Wentworth, Monroe
Andrew Sloan, Oneida

Reference Committee on New Business (A)
Edward C Podvin, Chairman, Bronx
Harry P Mencken, Queens
Leo F Schiff, Clinton
Clarence G Bandler New York
Herbert B Smith, Steuben

Reference Committee on New Business (B)
Thomas A McGoldrick, Chairman, Kings
Reeve B Howland, Cheming
Chalmer [Longstreet, Broome
John A Hartwell, New York
Dudley R Kathan, Schenectady

Reference Committee on New Business (C)
B Wallace Hamilton, Charman, New York
Harry C Guess, Erie
Horace M Hicks, Montgomery
Frank R Henne Jefferson
Harwood L Hollis, Oswego

Credentials
Daniel S Dougherty, Chairman, New York
Peter Irving, New York

THE SPEAKER The President has the floor

4 Address of the President

Section 81

Dr. Frederic E Sondern, President We welcome you to this 130th Annu'l Meeting We have prepared for you an attractive program and we hope you will enjoy it. This gives me another opportunity to thank you for the honor that you have done me We have made our report of stewardship and my hope is that the outcome of your deliberations and your actions will be such as are in the interests of the public and of the profession

I, and the officers whom I represent, wish to thank you for your courtesy throughout the year, for which we are indeed grateful. I have nothing to add to my report which is before you in the handbook I thank you again for your courtesy

THE SPEAKER Will Dr Kosmak and Dr Borrell escort the President Elect to the platform?

5. Address of the President-Elect

THE PRESIDENT-ELECT You have had from the President of the Society a brief discussion of some of the problems that have been before the Society for the past year During the coming year there will be further problems coming up for solution. These may be put under four heads

You will recall that at the last meeting of this House of Delegates provision was made for a Committee on Organization, the purpose of this Committee being first, to investigate the business methods of this Society and make an cedure had been recommended by several of my predecessors The need for such a pro cedure came about through the fact that there was a distinct lack of clear-cut definition as to the duties of the various Standing Com mittees Such a lack of definition led to an overloading of the work of the Committees and to a consequent mefficiency in achieve-ment, and increase of expense. It is to be hoped that as the result of the consideration of the report of this Committee on Organiza-tion, this House of Delegates will be able to take steps that will strengthen the relationship between the various component county societies and the State Society

Second, this Society has a full time Executive Officer, one of whose many duties is to participate in the work of the Legislature at Albany However, while the Legislature is in session all of his time is given up to legislative work, thereby leaving no time for field work among the members of the Society One of the vital needs of this Society today is to strengthen the contact between the ordinary, every-day practicing physician and the officers and the committee of the Society.

Third, one of the duties of the Council of this Society is the appointment of an Executive Committee which functions while the House of Delegates is not in session. I submit for your consideration the fact that the efficiency of this Committee would be greatly increased if an arrangement were made by you whereby the members of the Board of Trustees and the chairmen of the Standing Committee would participate in the deliberations of the Executive Committee, in addition to their formal written reports which are submitted as now

Fourth, one of the major duties of the Society during this past year has been the consideration of the problem existing between the doctor and the hospital. It is obvious that no hospital can exist without doctors. Conversely, it is equally true that the doctor needs the hospital it would, therefore, seem to be for the public good and for the benefit of the hospitals and for the benefit of the hospitals and for the benefit of the doctors if representatives of the hospitals could be called into conference by this organization in an effort to bring about a harmonious solution of these problems

This occasion furnishes me the opportunity of extending to you my appreciation of the honor you conferred upon me in making me the President of this organization I solicit

HOUSE OF DELEGATES

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THE SECRETARY: The Committee on Credentials finds no disputed delegations, and all those whose names are on our roll are entitled to vote.

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Motion seconded and carried.

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His Lordship is going to speak to us formally upon other occasions and I simply want the pleasure of having him here and extending

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Section 81

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I, and the officers whom I represent, wish to thank you for your courtesy throughout the year, for which we are indeed grateful. I have nothing to add to my report which is before you in the handbook. I thank you again for your courtesy.

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This occasion furnishes me the opportunity of extending to you my appreciation honor you conferred upon me in the President of this organization.

from the membership of this organization its whole-hearted support during the coming year, which will go far in advancing the interest of the Medical Society of the State of New York.

THE SPEAKER: The remarks that you have just heard are contained in a communication in my hands, and is referred to the Reference Committee on President's Report for action.

You have before you the Reports of the President, the President-Elect, Council, Board of Trustees, Censors, Secretary, Treasurer, Councilors, Counsel, Standing Committees, and Special Committees.

Dr. Dougherty, Secretary: I move that these Reports, inasmuch as they have been printed and published, be sent to the respective reference committees without reading.

Motion seconded and carried.

THE SPEAKER: Are there any of the officers or committeemen who desire to render supplementary reports?

6. Secretary-Emeritus

Dr. Gordon Heyd, New York: Mr. Chairman, members of the House of Delegates:

"WHEREAS: Dr. Daniel S. Dougherty having been secretary of the Medical Society of the State of New York since May 1925, and having since that date sacrificed time, energy, and health for the betterment of the Medical Society of the State of New York; and

"Whereas, we, the members of the House of Delegates, desiring to show our pleasure that his recent improvement in health willagain make his wise counsel available to our organization and as an earnest of our good wishes and an appreciation of his many long years of faithful service already given, hereby

"Resolve, That there be created the position of Emeritus Secretary to the Medical Society of the State of New York and that Dr. Daniel S. Dougherty be made the Emeritus Secretary of the Society to serve it in an advisory capacity with his present salary and membership and vote in the House of Delegates, and we

"Further Resolve, that this title and position shall be continued for as long a time as Dr. Daniel S. Dougherty shall survive and that the said position and title shall cease upon his

demise."

I move that the rules of the House of Delegates be suspended temporarily and that the House act upon this resolution at this time.

Motion seconded and carried. The Chairman announced the rules suspended. There being no discussion the Speaker called for a standing vote. The resolution was adopted unanimously and with acclaim.

Dr. Dougherry: I cannot say anything, boys. It is impossible for me to make my usual fluent speech and be eloquent on an occasion like this. All I want to say is that I thank you from the bottom of my heart and express my warm friendship—yes, my love, for you all.

The Speaker: Before I call for resolutions,

I am going to enlist the services of Drs. Kosmak and Ratnoff to escort to the platform a

very distinguished gentleman. Since we last met the American Medical Association has honored one of us to be the Speaker of its House of Delegates, and it is with some temerity that I preside when Dr. Van Etten is in the room. I ask these gentlemen to bring Dr. Van Etten

to the platform.
DR. VAN ETTEN: Mr. Speaker, I deeply appreciate the honor of being so signally distinguished this morning. After forty-six years in medicine, forty-five of which have been spent in organized medicine, I still have much to learn in the progress and development of medicine in the United States. I have been served continuously by this House since the investiture of President Alexander Lambert, and I forget how many years ago that was. I think I have never missed a session of this House. I have seen this House change a great deal in that time. I have seen the faces change. I have seen many of you grow older and more experienced. But there is one thing that I particularly noticed in this House, and that is the individual intelligence and interest among its members. Formerly most everybody said "aye" to whatever was proposed. Now there are a great many intelligent minorities. Minorities are the spice and health of life. It is very important that you have assumed these active interests in medicine and I am sure that with the desire of the President for better coordination among the county societies this House will still further improve in active interest.

Mr. Speaker, I am really a tyro at presiding and I shall make a special request of you this morning that when we convene in Kansas City you will sit on the front seat immediately in front of me and by a system of preconceived signals give me proper support in my parlia-

mentary procedure.

Тне Speaker: I will be very glad to sit at your feet as I have for many years, but I do not know about signals-I fear they might be

cross-signals.

I am ready to hear resolutions.

7. Malpractice Indemnity Insurance

Sections 18-57

Dr. Gordon Heyd, New York: "Whereas: The Insurance Committee has under consideration for some time the entire question of malpractice indemnity insurance and was served with a notice that the Aetna Insurance Company demanded an increase in the rates, your Insurance Committee was faced with the necessity of making decisions that carried with them possibility of a new agreement with an increased rate, and

"WHEREAS: the time limit had been reached within which notice of change was necessary to be given to the Aetna Company, therefore the Insurance Committee recommended to a Special Meeting of the Executive Committee a transfer of malpractice indemnity insurance to the Yorkshire Insurance Company of New York with the basic rate at \$30, and

"WHEREAS: the Special Meeting of the Ex-ecutive Committee approved of this resolution,

"WHEREAS: The regular meeting of the Executive Committee on September 12 and the Council on December 12 approved of the action of the Special Meeting of the Executive Committee, be it therefore

"Resolved: that the House of Delegates approve of the actions of the Executive Committee and Council, and furthermore

"Be it Resolved; that the House of Delegates commend the present plan and agreement with the Yorkshire Indemnity Company.

Referred to Reference Committee on New Rusiness C.

8. Group Insurance-Booth Plan

Section 77

Dr. Gordon Heyd, New York: "Whereas, in proposition No. 3 of the Booth Report (published in STATE JOURNAL OF MEDICINE, NEW YORK, May 1, 1933) there is a provision which states that subscribers to insurance plans shall have certificates specially stating that the service does not cover the fee of the patient's phy-

"WHEREAS, in the evolution of such and similar plans it would seem wise and timely that there be further elucidation of these findings,

"Be it Resolved, that the following statement of fundamentals be adopted as a guide, a definition and a statement of the attitude of organized medicine in the State of New York, upon

this issue, to wit:

"In every community there are persons and families who maintain a status of self reliance with difficulty, particularly when overtaken by hospital or medical care needs. These people are of the low-salaried classes and others who meet their living expenses from their weekly earnings. It is they who have need for some means through which to spread payments of hospital and medical care expenses by some form of budgeted installments with adjustments of the totals to their respective circumstances.

"The application of the principles and methods of insurance to lessen these burdens is possible. The form of this application is the all-important consideration upon which this Society shall rest its approval or disapproval. Certain so-called insurance plans are in fact nothing more than thinly veiled schemes for a 'contract medical service.' Wherever group insurance contracts to provide for the provision of the care of the sick and injured, administration difficulties, com-plications and irregularities have developed. There the insuring agency intrudes itself into the relationship between the policy holder and those who render the service, and dissatisfaction therefrom arises in the minds of both the public and the profession. Here, also, the quality of the medical care invariably deteriorates.
"Upon such facts the attitude of this Society,

in consideration of the public welfare, is, that of disapproval and opposition to any insurance

plan of such type.

"Therefore, this Society condemns all such insurance schemes which violate the fundamental principles of insurance practices. It will approve only those insurance plans which contract to provide indemnity. In other words, this Society approves only those insurance contracts

which provide the policy holder or member of a 'mutual' with the finances from which to compensate that service which he may require, and this without interceding in a dictatorial position between the policy holder and his physician or the hospital as to the terms or conditions of the service rendered.

"Further, this Society condemns every insurance plan which contracts to provide any form of medical diagnosis and/or treatment. It disapproves of any insurance plan which does not limit the benefits of 'low premium' policies to those persons or families who have only

limited income.

"Further this Society approves the establishment of non-profit or mutual indemnity plans of insurance which do not contract to provide any form of medical or hospital care, which proposes to indemnify the expenses of needed medical and hospital care, and provided that in the organization and administration of such plans there is reasonable and proper representation of the local medical profession (nominated or approved by the local County Medical Society) on the Board of Directors.

"And further, this Society recommends guiding participation in such plans by local county Medical Societies with encouragement for the

development of such enterprises."

Referred to Reference Committee on New Business B.

9. Consolidation of Executive Offices

Section 71

Dr. Gordon Heyd, New York: Mr. Chairman, and members of the House of Delegates: Following last year's meeting your Executive Committee appointed a special committee which has become known as a Committee for Study, Survey, and Consolidation of Executive Offices. A detailed study of our organization indicated that the business of the Society was beyond the capacity of the present organization, and, therefore, we submit to you a report on the consolidation of executive offices. This is a little lengthy but some points are of great im-portance. Throughout the whole of the deliberations was the philosophy that the power of your Society eminates from this House of Delegates and must be deposited therein.

1. In order that there shall be a consolida-tion of function and increased efficiency in the administration of the Medical Society of the State of New York it will be necessary to amend the Constitution and By-laws to permit the adoption of any changes that the House of

Delegates may recommend.

2. The Committee begs leave to submit its report on the measures that are deemed wise in order to accomplish an increased effectiveness and economy of administration.

3. The measures proposed are submitted in general terms and obviously will require a large measure of thought and consideration.

4. The Report is as follows:

A. It is proposed that some units of the old organization be retained with modifications, some abolished, and some new ones added.

1. RECOMMEND: That the present constituted

Council be abolished.

- 2. Recommend: That the present constituted Executive Committee be abolished.
- 3. Recommend: That an Executive Board be set up to function in place of (1) and (2) above mentioned. This Executive Board to be composed of 26 members as follows:
- a. Officers (6 members each elected for one year as follows: President, President-Elect, Secretary, Treasurer, Speaker and Immediate Past-President.)
- b. Members of the Board of Trustees (5 members elected for 5 years).
- c. Members of the Board of Scientific Activities (5 members elected for 5 years).
- d. Members of the Board of Medical Public Relations (10 members elected for 5 years).
- This Executive Board shall have regular meetings at such stated intervals as may be necessary to carry out its functions and at these meetings each of the component groups shall be present in order to report on the activities which are the immediate concern of each group. All such activities, however, shall be subject to the general control and supervision of the combined groups acting as the Executive Board. The allotment of duties to each group shall be as follows:
- a. The Board of Trustees shall be the representative of the Executive Board in concerning itself with all financial activities of the organization in a manner similar to the present set-up except as to any conflict with this proposed set-up. The members of this Board shall be elected one each year by the House of Delegates at the Annual Meeting, after an enabling motion and this recommendation becomes imperative.
- b. The Board of Scientific Activities shall be the representative of the Executive Board in supervising the work now carried on by the following committees:
 - (1) Committee on Scientific Work.
 - (2) Committee on Public Health and Medical Education.
 - (3) Committee on Arrangements.

The members of this Board shall be elected one each year by the House of Delegates at the Annual Meeting after an enabling motion and this recommendation becomes imperative.

- c. The Board of Medical Public Relations shall be the representative of the Executive Board in concerning itself with the following activities:
 - (1) Workmen's Compensation.
 - (2) Defense Insurance.
 - (3) Economics.
 - (4) Journal Management and Publication.
 - (5) Trends, Medical, and Social.
 - (6) Publicity.
 - (7) Health Departments, Welfare Agencies, and Hospitals.
 - (8) Legislation.
 - (9) Cooperative Relationships with Federal and State Governments, Foundations and other Lay Groups in Public Health Work.

The Members of this Board shall be elected two each year by the House of Delegates at the Annual Meeting after an enabling motion and this recommendation becomes imperative.

Any and all of the above groups shall have associated with them legal counsel, insurance

counsel, and publicity counsel.

The changes outlined above will require cancellation of all of the Committees indicated in Chapter 10, page 24 of the By-laws of the Medical Society of the State of New York.

4. RECOMMEND: That the terms of office for the Officers and other members of the Executive Board in the new set-up shall be as follows:

President1 year
President-Elect
Immediate Past-President1 year
First Vice-President1 year
Second Vice-President
Secretary1 year
Assistant Secretary
Treasurer1 year
Assistant Treasurer
Speaker of the House of Delegates1 year
Vice Speaker of the House of
Delegates1 year

Members of the Board of Trustees...5 years Members of the Board of Scientific

5. RECOMMEND: That the Medical Society of the State of New York employ a full time Director of Activities and that his duties shall

- be as follows:

 a. He shall have general management of all of the executive details of the Society subject to the Executive Board.
- b. He shall be the coordinator of all Boards, Bureaus, and Committees that may be constituted from time to time.
- c. He shall act as secretary of the Executive Board, the Board of Trustees, the Board of Scientific Activities, the Board of Medical Public Relations, and the House of Delegates.
- d. He shall be a physician who has been in practice for at least ten years, who has established a reputation for executive ability, and who is desirous of making a career in an executive capacity as Director of Activities of the Medical Society of the State of New York.
- e. The salary for this position is to be determined by and shall be commensurate with the ability of the individual and sufficient to make a career as Director of Activities a permanent and highly desirable one.
- 6. RECOMMEND: The employment of two assistant Directors or Associate Directors of Activities:
- a. One of these to function for the metropolitan area of New York State and the other to function for New York State outside of the metropolitan area.
- b. These Assistant Directors should be physicians who previously have been in practice for at least seven years. They should be of

known executive ability, willing to become career men, and to work under the Director of Activities in special allocated duties.

- c. The salary of these men to be commensurate with the ability of the individuals and the importance of such a career to organized medicine.
- 7. RECOMMEND: That the District Branches be abolished.
 - B. The proposed set-up would be as follows:
- 1. The officers of the Society would be a President, a President-Elect, two Vice-Presidents, a Secretary, an Assistant Secretary, a Treasurer, an Assistant Treasurer, a Speaker, and a Vice-Speaker of the House of Delegates, all with some changes in duties and status needed for purposes of the new set-up.
- The House of Delegates would remain as now constituted, but with certain changes in duties and status needed to conform to the

new set-up.

- 3. The Board of Trustees would remain as now constituted, but with certain changes in duties and status, to permit integration with the Executive Board.
- The Section Officers would remain but their activities would be integrated with and subject to the control of the Board of Scientific Activities.
- 5. The Legal Counsel, the Insurance Counsel, and the Publicity Counsel would be retained.
- The Executive Committee would be abolished.
- 7. The Council would be abolished.
- 8. The Standing Committees and other committees would be abolished.
- The District Branches would be abolished.
 The present position of Executive Officer
- would be abolished.

 11. An entirely new body with twenty-six members, to be known as the Executive Board would be set up. This Board would be com-
- posed as follows:
 Officers (6 in number)
 - To include President, President-Elect, Secretary, Treasury, Speaker, and immediate
 - Past-President.
 - Board of Trustees (5 in number) Board of Scientific Activities (5 in number) Board of Medical Public Relations (10 in
- 12. All twenty-six members of the Executive Board would be elected by the House of Delegates.
- 13. The Legal, Insurance, and Publicity Counsels would be employed by and subject to the general direction of the Executive Board.
- 14. A Director of Activities and two Associate Directors of Activities would be engaged by and subject to the general direction of the Executive Board.
- 15. There would be created to last during the lifetime of Dr. D. S. Dougherty the position of Emeritus Secretary, advisory, with present salary, and to terminate upon the demise of Dr. Dougherty.
 - 16. The function of the Secretary would be

- that of Recording Secretary. He would keep the Minutes of and have the seal of the society.
- 17. The functions of other officers in the new set-up would be as now except where there would be conflict with the provisions of the new set-up.
- 18. The function of the Executive Board composed of six officers, five trustees, five members of the Board of Scientific Activities, and ten members of the Board of Medical Public Relations would be as follows:
- a. It would be charged with the general management, superintendence, and control of the Society and of Society affairs and it would have such general powers as would be necessary therefor.
- b. In it would be centered all of the legislative and executive authority of the organization
- c. It would devise and adopt all organization policies and activities and arrange for their carrying out.
- d. In this Executive Board every activity of the Society would be interlocking.
- e. For this reason the Board would be in control at all times of all Society activities and this would result in economy and efficiency.
- f. In the Executive Board would be vested the power of the organization, therefore it could speak promptly and authoritatively in all situations and emergencies involving the interests of organized medicine.
- g. The Executive Board would largely be composed of long term appointees who would thus become experienced in the problems of their departments as relating to organized medicine, so that this Board would soon become a competent Board of Medical Strategy.
- h. Since every member of this Board would be elected by the House of Delegates and subject to recall by the House of Delegates it would be representative of the interests of all the groups that make up the State Organization.
- 19. The House of Delegates would have power to recall any or all of the members of the Executive Board for serious malconduct in office. This recall should be carefully safeguarded in the Constitution, however, so that unwise and meddlesome interference on the part of radical or discontented groups in temporary power would not occur.
- 20. The administering of the affairs of the Society under the proposed changes indicated above would be carried out with a material saving in costs and a marked increase in effectiveness of purposes of organization.

Referred to Reference Committee on New Business A.

10. Finances of the Society

Sections 47-78

DR. GORDON HEYD, New York: "WHEREAS: There exists a state of greatly disturbed financial conditions, it is hereby

"Resolved: That the Trustees by a vote of the House of Delegates be permitted to invest

Referred to Reference Committee on New Business B.

11. Definition of Good Standing

Section 67

DR. GORDON HEYD, New York: "It Is Moved, That non-payment of dues by midnight of any current year shall be the fixed and specific date upon which membership in good standing is determined. Non-payment of dues by this fixed time shall automatically cancel membership in the Society and all of the privileges that pertain thereto.

"Suspension or expulsion shall terminate malpractice defense and automatically cancel malpractice insurance. These events shall become operative if and when a member has been officially suspended or expelled, and shall not be operative during the time a member is appearing before the Board of Censors or is

Referred to Reference Committee on New Business A.

12. Full Time Employment and Private Practice

Section 58

DR. EDGAR A. VANDERVEER, Albany: "Resolved, that the Medical Society of the County of Albany condemns the practice of physicians on full time employment by the State, engaging in private practice for profit and that the Delegates from Albany County be instructed to present this protest to the House of Delegates of the Medical Society of House of Delegates of the Medical Society of the State of New York."

Referred to Reference Committee on New

Business C.

13. Licensing Foreign-Educated Physicians

Sections 17-56-85

Dr. Edgar A. Vanderveer, Albany: "In view of the apparent increase of foreigneducated physicians who are being licensed to practice in New York State it is recommended that the Society go on record as disapproving such procedures and that the Medical Society of the State of New York be requested to take appropriate action insuring the necessary legislation to remedy this situation."

Referred to Reference Committee on New

Business A.

14. Supplementary Report of Committee on Public Health and Medical Education

Section 41

Dr. THOMAS P. FARMER, Onondaga: "A resolution passed by the Medical Society of the County of Westchester on November 19, 1935, recommending that a study be made regarding periodic physicians' examinations as a means of prevention of motor accidents was referred by the Executive Committee to the Committee on Public Health and Medical Education for study.

'At a meeting of the Committee held on

February 20, 1936, the Committee, after considering the matter adopted the following

resolution:

"That inasmuch as a special committee of the Legislature has been appointed to study with the Commissioner of Motor Vehicles of New York State, the matter of changes in the law and procedures of granting drivers' permits, it would be advisable for the Chairman of the Committee on Public Health and Medical Education to confer with the State Commissioner of Motor Vehicles, offering the Committee on Public Health and Medical Education to confer with the State Commissioner of Motor Vehicles, offering the Committee's willings and discuss with him and mittee's willingness to discuss with him, and advise on medical phases of the matter.

"The Chairman has had such a conference with the Commissioner of Motor Vehicles, who has indicated his willingness to confer with the Committee in this regard. In view of the proposed changes and improvements to be made, it would seem advisable at the present time to take no definite action as to the desirability of having physical examinations made on

all applicants for drivers' licenses.

"In regard to the communication from Miss Grace Landon, Specialist, Emergency Nursery Schools, regarding nursery schools for children from teacher. dren from two to four years of age, to be carried on as a work project under the Works Progress Administration, Miss Landon's attention should be called to the fact that day nursery schools in the State of New York are under the inspection and supervision of the State Department of Health. It is advised that any such nursery schools set up by the Works Progress Administration should conform to the same requirements which the State Department of Health now makes for other nursery schools. It would seem advisable that a physician be attached to each one of these nursery schools."

Referred to Reference Committee on Report of Committee on Public Health and Medical

Education.

15. Anesthetics as Practice of Medicine

Section 53

Dr. James H. Borrell, Eric: "At a meeting of the Medical Society of the County of Eric, held April 20, 1936, the following preambles and resolution was adopted:

"WHEREAS, at the 1933 Annual Meeting of the House of Delegates of the Medical Society of the State of New York the following resolu-

tions were passed:

"Resolved, that the Medical Society of the State of New York affirm that the giving of an anesthetic constitutes the practice of medicine and insist on the strict observance of the pro-visions of the Medical Practice Act without subterfuge or evasion.

"Resolved, that if it is the opinion of the Attorney-General that non-medical technicians practicing anesthesia are not violating the law under present conditions, that the proper procedure be instituted to obtain legislation which will include anesthesia in the practice of medicine or limit the administration of anesthesia

to duly licensed dentists or physicians. "Whereas, the Medical Society of the County of Erie has received no information of any action taken purusant to the foregoing resolutions,

therefore,

"Be It Resolved, that the Medical Society of the County of Erie instruct its delegates to present to the House of Delegates at the 1936 Annual Meeting a recommendation that the proper committee of the Medical Society of the State of New York be directed to draft and promote at the 1937 session of the New York State Legislature a Bill to limit the administration of anesthesia to duly licensed physicians and dentists, except in cases of emergency.'

Referred to Reference Committee on New

Business B.

16. Invitation to Hold 1937 Annual Meeting

Sections 59-76

DR. JAMES H. BORRELL, Erie: "At a meeting of the Medical Society of the County of Eric, held April 20, 1936, the Society instructed its delegates to present to the House of Delegates, through the proper committee, a cordial invita-tion to hold the 1937 Annual Meeting of the Medical Society of the State of New York in the City of Buffalo."

Referred to Reference Committee on New

Rusiness C.

17. Licensing Foreign-Educated Physicians

Sections 13-56-85

Dr. DAVID J. KALISKI, New York: "WHEREAS, it has become apparent that the number of physicians obtaining licenses to practice medicine in the State of New York by endorsement of their credentials is increasing inordinately, and

"WHEREAS, a considerable number of physicians, graduates of European medical schools are being licensed by endorsement of their credentials without a professional examination,

"Whereas, graduates of our own medical schools and licensed physicians of many other states are required to pass a professional examination before being licensed to practice in

this state, and

"Whereas, the maintenance of high professional standards and the public health and welfare require that graduate physicians be required to establish their competence by submitting to a thorough examination before being licensed to

reactice the healing art, and "Whereas, some who have been licensed by endorsement could hardly be considered as eminent or unusually distinguished, and

"WHEREAS, the large number of physicians already so licensed by endorsement, if it continues will actually nullify the law which has

been enacted to protect the public,

"Therefore, Be It Resolved, that the Medical Society of the State of New York, in annual meeting assembled, deplores the excessive number licensed by endorsement, and requests the authorities of the Department of Education to cease granting licenses by endorsement, except in very exceptional circumstances, and where the eminence of the applicant is generally unquestioned."

Referred to Reference Committee on New Business A.

18. Malpractice Indemnity Insurance

Sections 7-57

DR. JAMES M. DOBBINS, Queens: "1. WHEREAS: In spite of fourteen years of successful and satisfactory operations with the Aetna Life Insurance Company there has been

effected a change in carrier, and "2. Whereas: There is proof that the facts and figures purporting to indicate why this arrangement should be terminated were not freely discussed by our Insurance Committee with

representatives of the carrier, and
"3. Whereas: Evidence indicates the insurance representative of this Society, who is not an elective officer, was practically permitted to terminate this arrangement and to formulate

a new agreement with the present carrier,
"4. WHEREAS, The Committee exceeded their function by consummating this change before official approval by the House of Delegates or the Executive Committee or Council although no provision of the Constitution or By-Laws clothes any committee with such authority, and

"5. WHIREAS: In the opinion of many delegates the Council and Executive Committee violated Section 5, Chapters IV and V of the By-Laws and exceeded their authority in ordering the change without the approval of the House of Delegates, and

"6. WHEREAS, The new carrier having no experience in underwriting this type of insurance was willing to accept as fact the figures of the previous carrier in order to determine the rate of this insurance, and

"7. WHEREAS: In accepting this risk the present carrier was accepting an increase of fifty percent in the premium business on an untried risk, a fact considered inconsistent with good insurance principles, and

"8. WHEREAS: In our opinion the high cost of this group plan is due to excessive commissions and additional charges made by our insurance representative in order to conduct this business which can be and should be reduced, and

"9. WHEREAS: It is practically impossible for any one representative to personally attend the needs of the insured physicians and that such responsibility should be left the individual doctor to seek aid and assistance from his own broker or agent, and

"10. WHEREAS: The new carrier is a wholly owned subsidiary of a British Corporation, and

"11. WHEREAS: There exists some doubt as to the ability of this Company to properly manage this type of insurance, and

"12. WHEREAS: There is evidence of continued losses by this carrier with a loss of premiums of two hundred and fifty-four thousand eight hundred and seventy-five dollars and twelve cents in 1935

"13. WHEREAS: The Insurance Department of the State of New York has no jurisdiction over the parent company in England and therefore could not force the payment of any debts of its subsidiary, and

"14. WHEREAS: There is sufficient proof that the new insurance policy as submitted by the new carrier is detrimental to the best interests of the assured, and in many respects contrary to the rules and regulations governing group insurance adopted by the House of Delegates on April 3, 1933, and

"15. WHEREAS: There is sufficient proof that the restrictions of this new policy are such as to create the possibility of inadequate and incomplete insurance for the physician, and

"16. WHEREAS: It becomes necessary for all people who might answer or refer 'phone calls to any other doctor to understand some of the restrictions of the new policy, and

"17. WHEREAS: It is the belief of many doctors that our present insurance representative has acted in a manner which will not reflect the welfare or interest of our members, and has caused to be affected suspicion and doubt as to his sincerity of purpose, both in insurance fields and in our own profession, and

"18. Whereas: In order to restore order out of chaos which will possibly result in the deprivation of the benefits of this form of insurance for the doctor except with higher rates as a result of this Society endorsing the new carrier, therefore

"Be It Resolved: That a special committee of seven, representative of all parts of the State be

appointed, and
"Be It Further Resolved: That this committee be authorized to proceed at once in the investigation of all phases of malpractice insurance and be requested to render their report within two months, and

"Be It Further Resolved: That funds for this investigation be appropriated by the State

Medical Society."

THE SPEAKER: Are you aware, Dr. Dobbins, that some of those preambles are an implied criticism of the officers of the State Society? Do you want time to revise them or do you want to hand them in as they are?

Dr. Dobbins: Just as they are. I do not offer any criticism of the elected officers of the State Society. I have made no criticism, Mr. Speaker.

THE SPEAKER: With that understanding, that there is no criticism—because that would imply that we should take immediate action on a vote of censure—the speaker will receive these resolutions and refer them to Reference Committee on New Business C

Referred to Reference Committee on New

Business C.

19. Permanent County Society Offices

Section 46

Dr. L. H. BAUER, Nassau: "Whereas, several Societies have established County Medical permanent county society offices, and

"WHEREAS, several County Medical Societies

have appointed lay executive secretaries, and "WHEREAS, the failure of the Medical Society of the State of New York to officially recognize these offices and lay secretaries has led to confusion, delay in and interference with the transaction of business and consequent loss of efficiency, therefore,

"Be It Resolved, by the House of Delegates of the Medical Society of the State of New York assembled in New York City on April 27, 1936, that whenever the President of a County Medical Society so requests, all correspondence issuing from the State Medical Society office for that County Society be addressed to the County Society office and not to the office or home address of the secretary, and

"Be It Further Resolved, that the addresses of these County Society offices shall be published in the Medical Directory of the Medical

Society of the State of New York."

Referred to Reference Committee on New Business B.

20. Amendments to Constitution and By-Laws—Associate Members, Auxiliary Members, Etc.

Section 54

Dr. CHARLES E. FARR, New York: WHEREAS, there are medical men in full time scientific service who do not practice medicine for gain; and

"Whereas, such men would be valuable additions to our membership; now, therefore

"Be It Resolved, that the Constitution and By-Laws be so amended that provision be made to create another class of associate members, comprising this full time group, who shall pay yearly dues at a less than normal rate, as shall be determined by the County Society which creates such membership. These shall have both voice and vote and may hold office in the county medical societies; and

"Be It Further Resolved, that if the sense of this resolution meets with approval by the House of Delegates that the subject matter be referred to a Committee on Revision of the Constitution and By-Laws to be incorporated in the revision and presented to the next House

of Delegates for action."

Referred to Reference Committee on New Business A.

Dr. CHARLES E. FARR, New York: "WHEREAS, there are medical men in government service who are frequently shifted to new posts, and while on duty on posts in this state, could benefit by integration with the member-

ship of the State Society; and "Whereas, although they are not engaged in private medical practice for gain, and are not permanent residents in our midst, and therefore should not be taxed, or assessed at the same rates which practicing physicians pay; and

"WHEREAS, they might be valuable additions

to our membership; now, therefore "Be It Resolved, that the Constitution and By-Laws be so amended, that provision be made to create another class of associate members comprising this government employed group. who shall have voice but no vote in component county medical societies, and who shall pay yearly dues at a minimum rate as shall be determined by the County Society which creates such a membership."

Referred to Reference Committee on New

Business A.

York: CHARLES FARR, New Dr.

"Whereas, there are many men who form a special group of medical men, who are graduated from medical schools and are in practice less than five years; and "WHEREAS, these men should be aligned with

organized medicine as soon as possible;

Therefore, Be It Resolved, that Article II of the Constitution be amended by adding d) and associate members. and

"Be It Further Resolved, that the By-Laws be amended by adding between sections 5 and 6

another section which shall read:

Section 5a Associate members shall consist of doctors of medicine in practice for less than five years who shall constitute a list of associate members of each component county medical society, whose dues shall be less than that of active members at a minimum rate of dues fixed by the component county medical society: and

"Be It Further Resolved, that they shall pay

the regular State Society annual assessment."
THE SPEAKER: Dr. Farr, are you presenting this definitely as an amendment to the Constitution or as a resolution whose substance should be first decided upon and then sent to the Committee on Revision of the Constitution?

Dr. FARR: The latter method.

THE SPEAKER: The latter method.

Referred to Reference Committee on New

Business A. DR. CHARLES E. FARR, New York: "WHEREAS, there exists among us, non-medical men, scientists, teachers, public men of dis-tinction who are interested in problems in which the medical profession has a paramount interest;

"Whereas, in creating a mutual understanding of the aims, goal and program for social betterment and social justice in which organized medicine is interested, the association of such a group of public spirited individuals with organized medicine would be mutually advan-

tageous; and WHEREAS, the formation of such a group is not now provided for in our Constitution and By-Laws, and component county medical societies may desire to organize such a group of

auxiliary memberships;

"Now, Therefore, Be It Resolved, that the Constitution and By-Laws be amended to provide such a group of auxiliary members, outline their duties and privileges, and the dues they

shall pay; and "Be It Further Resolved, that a Committee on Revision of the Constitution be appointed to study the various problems presented to this House of Delegates, which having been adopted in principle, shall be written into a revised copy of the Constitution and By-Laws and presented to the next annual meeting of the House of Delegates for adoption."

Referred to Reference Committee on New

Business A.

THE SPEAKER: It is with pleasure that I note that we are honored with the presence of the Secretary of the Board of Trustees of the American Medical Association among our guests, and I will ask Dr. Bedell to escort Dr. Hayden to the platform.

DR. AUSTIN A. HAYDEN: Gentlemen of the Medical Society of the State of New York: I wish to say that I have been so busy looking at your scientific and technical exhibits and incidentally picking up a few samples that my time is very fully occupied this morning. I am very glad to be here. Thank you.

21. Medical Directory

Section 49

DR. R. H. SHERWOOD, Niagara: "The following resolution was adopted by the Medical Society of the County of Niagara at a regular meeting, January 14, 1936.

"WHIREAS, the Directory published each year by the Medical Society of the State of New York costs approximately \$1.15 to prepare and

publish, and

"WHEREAS, it serves no useful purpose to over ninety-five per cent of the state member-

ship, and "Whereas, it is in part a duplication of information already available in the A.M.A. Directory, and

"WHEREAS, we believe this money could be more advantageously expended in enlarging the services the State Society can perform for its

members and the component county societies:

therefore,
"Be It Resolved that the Medical Society of
the County of Niagara requests the State Medical Society to discontinue the publication of the directory for general distribution.

"Be It Further Resolved, that the directory be made available for those who need the same, to be ordered and paid for similar to the procedure of the A.M.A.

"Be It Further Resolved, that a copy of this resolution be sent to each County Medical Society in New York State, and to the Secretary of the State Society"

I move the adoption of the above resolution

by the House of Delegates.

Referred to Reference Committee on New Business B.

22. Medical Legislation

Section 60

Dr. Louis Lewis, New York: "WHEREAS, Matters of vital importance regarding 'Public Health' and the economic future of the Practice of Medicine are often presented before the

Legislature of the State of New York, and "WHEREAS, There are practically no physicians, as members of the Legislature to discuss the genuine merits or faults of proposed medical

legislation, and
"WHEREAS, we believe that the members of the Legislature are earnestly interested in the health of their communities and are anxious to receive correct information regarding any bill

pertaining to health matters, and "WHEREAS, We know that members of the State Medical Society are better equipped to give information for the furtherance of the economic and scientific security which has been achieved so far by the constant vigilance of Organized Medicine, and

"WHEREAS, Practically there exists organized effective method for quick and efficient personal contact with the political powers

of each district, therefore

"Be It Hereby Resolved, That a Committee, composed of seven members, to be known as The Legislative Contacts Committee, be appointed by the President of the Medical Society of the State of New York. This Committee to have the power of forming sub-committees in the various counties of New York State, the duties of which shall be to assist in the passage or prevention of legislation as recommended by the Committee on Legislation of the Medical Society of the State of New York."

Referred to Reference Committee on New

Business C.

23. Executive Offices for District Branches

Dr. Harwood L. Hollis, Oswego: "Whereas, it is common knowledge that there are abroad in this State many organizations and individuals, who, if their activities be an index of their intentions, imperfectly cooperate with or actively oppose the aims of ourselves, the organized medical profession, and

"WHEREAS, it is not possible for the elected or employed State Officers or the elected and employed county officers to give as much time and effort as is necessary to correct these

present or impending abuses,

"WHEREAS, such important duties as correlating the activities of one County Medical Society with its Fellows, and such activities as inspire groups to constructive antagonism against deleterious propaganda, and such obligations as whole-hearted cooperation with the State Society in its constructive efforts, and such efforts as are necessary to properly acquaint every member of the State and County Societies with the helpful activities as well as with the offensive encroachments of the State Health Department are imperfectly conducted or absolutely neglected, and

"WHEREAS, there is no relief from the present conditions without an uneconomic expenditure of local effort, and then only imperfectly, since many of the problems arising require legal training and a wide acquaintance with the various government set-ups now so prevalent, be

it, therefore
"Resolved, that we, the House of Delegates
of the State Medical Society, recommend the appointment of a full-time assistant executive officer for each district branch, whose duty shall include any of the above-mentioned delinquencies and any others as shall seem necessary in the opinion of the State Medical Society through its state officers.

"To facilitate the establishment of these assistant executive officers, it is recommended that for one year they work under the direction of the State Executive Officer; and that final and permanent disposition and allocation of these men shall be made at the meeting of the House of Delegates at the 1937 annual meeting of the State Medical Society

"It is further recommended, that these men be appointed and their remuneration fixed by the Executive Committee of the State Medical

Society; and that these assistant executive officers be paid from the funds of the New York State Medical Society in exactly the same manner as other full-time employees are paid.

"Further be it recommended, that the tenure of office of these assistant executive officers be terminated only by the Executive Committee of the New York State Medical Society; and such replacements as are necessary by discharge or resignation of these assistant executive officers be made by the Executive Committee of the State Society.

Referred to Reference Committee on New

Business A.

24. Hospital Management and Medical Staff

Sections 52-80

Dr. Walter D. Ludlum, Kings: "The following resolution was adopted at the regular stated meeting of the Medical Society of the County of Kings on April 21, 1936.

"WHEREAS, the hospital has become an increasingly important factor in the provision of

medical care, and

"WHEREAS, the authority of management is almost universally in the hands of laymen, and "Whereas, the professional care of the sick

is essentially a medical function, and

"WHEREAS, the public interests will be better served when medical opinion evaluates the professional competency of candidates for appointment or promotion, and

"WHEREAS, changes have been made in the medical staff and medical personnel organization of some hospitals without due consideration of the opinion of the physicians constituting the

medical staff, and

"WHEREAS, changes in staff organization and personnel have been made which were not in the public interest, and often have been in fact acts of injustice to physicians who, by honorable and faithful service, had acquired a moral right to the continuance of such privileges and benefits as flow out of the hospital connection,

"WHEREAS, a correction of such wrongs is possible only through the action of an authoritative body, qualified and constituted to speak

the opinion and will of the medical profession:
"Therefore, Be It Resolved, that hereafter
only those institutions which recognize, acknowledge and observe in practice no change in medical staff or personnel organization without recommendation or approval of its Medical Board, shall be regarded as maintaining approved status, and

Be It Further Resolved, that the President of each County Medical Society be authorized to appoint an impartial committee for the consideration and arbitration of any differences of opinion which may arise between the lay board of any hospital and its Medical Board,

"Be It Further Resolved, that it shall be considered unethical for any physician to accept appointment to fill a vacancy in any hospital staff or medical personnel organization which has been created by the lay administration in disregard of the principles of equity and justice herewith declared, and

"Be It Further Resolved, that a copy of this resolution be addressed to The American College of Surgeons with the request that due

regard be given thereto, and

Be It Further Resolved, that the Delegation representing the Medical Society of the County of Kings in the Annual Meeting of the House of Delegates of the Medical Society of the State of New York be instructed to introduce these resolutions and actively support their adoption in the next session which convenes April 27th, 1936 Referred to Reference Committee on New

Business B

25 Physiotherapy

Section 55

DR B WALLACE HAMILTON, New York WHEREAS, the New York State Department of Education is making an investigation of the administration of the Physiotherapy Clause of the Medical Practice Act of 1926,

WHEREAS, this statute permits non medical persons to set up their own offices for treating patients referred to them by physicians,

'WHEREAS physical therapy is an integral part of the practice of medicine and persons needing such treatment can receive it efficiently and economically in the offices of physicians and in approved hospitals and institutions of standing.

of the 452 physiotherapists WHEREAS. licensed only thirty-four passed the required State Board examination after graduating from a course approved under the provisions of the

"Whereas an American Registry of Physical Therapy Technicians has been set up through cooperation of the Council on Medical Education and Hospitals of the American Medical Association, The American Physiotherapy Association The American Congress on Physical Therapy and the Council on Physical Therapy of the American Medical Association and the standards for admission to this registry are fully acceptable to the medical profession

"Therefore, Be it Resolved, that the House of Delegates of the Medical Society of the State of New York recommends to the Regents of the University of the State of New York that the granting of further physiotherapy licenses be discontinued"

Referred to Reference Committee on New Busmess A

26 Mutual Aid Associations Schedule of Fees Sections 66-83

McGoldrick, THOMAS A Kings "WHEREAS, it has come to the knowledge of the Section on Industrial Relations of the Eco nomics Commission of the Medical Society of the County of Kings, through a committee representing the paternalized mutual aid associations of the Consolidated Edison Co., Inc. that hospital service has been engaged for the benefit of their members, and that the medical staffs of such hospitals are accepting a schedule of fees for their professional services which is unfairly competitive, and

"WHEREAS, this schedule of fees is immical to the reasonable economical security of the medical profession of the community at large,

WHEREAS, this form of collective bargaining constitutes competitive exploitation of the medi cal profession and is prejudicial to the public

interest.

Therefore, Be It Resolved, that any institu tion which engages in and encourages or permits by accessary participation such competitive commercialization of medical care or which permits its medical staff members to so engage their professional practice, shall be regarded as operating contrary to the welfare of the public and its medical profession, and that any such in-stitution shall be regarded as tending to lower the professional standards of the community, and

'Be It Resolved that any such hospital so engaged be immediately cited to the American College of Surgeons with a recommendation that approval of such hospital be immediately reconsidered and that the approval of any such

hospital be rescinded and

"Be It Resolved, that it shall be considered unprofessional and unethical for any member or members of the medical staffs of such hospitals to accept remuneration for their professional services extended to such patients based upon a schedule of fees not approved by the Medical Society of the County of Kings,

"Be It Resolved, that any member of the Medical Society of the County of Kings who may engage in such practice shall be cited to

the Censors, and

"Be It Further Resolved, that the Delegation representing the Medical Society of the County of Kings in annual meeting of the House of Delegates of the Medical Society of the State of New York, he instructed to introduce these resolutions and actively support their adoption in the next session which convenes April 27, 1936, and

"Be It Further Resolved, that a copy of these resolutions be published in the Bulletin of the Medical Society of the County of Kings and that a copy be sent to each hospital and samtarium in the County of Kings and to the co-ordinating Council of the five County Medical Societies of Grenter New York with a request that due notice be taken thereof"

Referred to Reference Committee on New

Business A

Official Pronouncements of County 27 Societies

Section 51

DR LOUIS A FRILDMAN Bronx 'WHITEAS, the By Laws of the Medical Society of the State of New York, Chapter 5, Section 3, page 15, state that the Executive Committee shall provide for the publication of official pronouncements of the component county societies when requested by such a society, and

"WHEREAS, the Bronx County Medical Society did officially request such a publication

of one of its pronouncements, and "Whereas, the Editor of the State Journal

refused to publish in the STATE JOURNAL such pronouncements,

"Be It Hereby Resolved, that the Executive Committee of the State Society be appraised of this failure of the Editor to honor such requests; and that the Executive Committee of the State Society take the proper steps to remedy such breach of our by-laws."

Referred to Reference Committee on New Business B.

28. Transfer of Membership

Section 48

Dr. G. S. Towne, Saratoga: "Whereas, the Constitution and By-Laws of the Medical Society of the State of New York do not now require for transfer of membership any definite period of residence in the county to which the member wishes to establish residence, and

"WHEREAS, the County to which the Physician transfers has no vote in acceptance of such member, or previous right of investigation, and

"WHEREAS, the said county to which transfer is made is required to accept responsibility for said physician, even though that physician does not reside in said county for only a few days,

"WHEREAS, the Saratoga County, owing to the development of the Mineral Waters and Spa facilities, increased numbers of physicians are coming to our county, who practice here for only a short period (a month to three months), and who have very little contact with our native population and the medical profession, and practice essentially Balneotherapy, and "WHEREAS, members of the Saratoga County

Medical Society strenuously object to accepting such short time practitioners into our membership, who later go to other counties and

states, and
"Whereas, we understand the above said
Constitution and By-Laws of the Medical Society of the State of New York are at the
present time under consideration of revision.

"Therefore, we the members of Saratoga County petition the House of Delegates to consider a by-law, whereby before a transfer is granted to a member of one county to another, the physician shall establish in the county to which he wishes to transfer a legal residence of at least six months, and maintain such residence for a period of six months in each year.

Referred to Reference Committee on New Business B.

A motion to adjourn, duly made and seconded, was carried.

The meeting thereupon adjourned at 12:15 P.M., to reconvene at 2 P.M.

AFTERNOON SESSION

The meeting was called to order by the Speaker at 2 P.M.

THE SPEAKER: The secretary has an announcement to make.

Dr. Peter Irving, New York, assistant secretary:

29. Prize Essays

This is a report from Dr. James Alexander Miller, Chairman of the Committee on Prize Essays, written to Dr. Dougherty in the form of a letter:

"The Committee on Awards of the State Society, consisting of Dr. Burton T. Simpson, Dr. E. G. Whipple and myself has carefully examined four essays which have been submitted to us, two of them for the Merrit H. Cash prize, namely, 'The Problem of Tuberculosis' with identification 'Science Thrives on Revolution' and 'The Neuro-Endocrine Factors in Carbohydrate Metabolism' with the identification of 'A.B.C.'"

It is the unanimous opinion of the Committee that the essay on the Problem of Tuberculosis deserves the Merrit H. Cash Prize and we would recommend its award.

The winner is Dr. Karl Fischel of Saranac

Lake.

"Also we have received two essays for the Lucien Howe Prize, one on 'Choroideremia' and the other on 'Corneal Transplants.'

"In the opinion of the Committee the very beautifully presented essay on 'Choroideremia' is worthy of the Prize and we would recommend the award of the Lucien Howe Prize for this essay."

The winner is Dr. Arthur Joseph Bedell of

Albany.

It was moved, seconded, and carried that the Report be adopted and the Merrit H. Cash Prize be awarded to Dr. Karl Fischel and the Lucien Howe Prize to Dr. Arthur Joseph Bedell.

30. City Charter-Tenure and Compensation of Medical Staff of Public Institutions

Section 70

Dr. Joseph Slavit, Kings: Dr. Van Etten, the distinguished Speaker of the House of Delegates of the American Medical Association, referred this morning in his speech to minorities, and, representing one of these minority opinions in the profession of medicine, I beg leave to

present the following two resolutions:
"Whereas, the charter of the City of New York, including five counties of the State of New York, is in process of revision by a special commission appointed for the purpose and representatives of organized medicine are sitting in and participating in the revision of the said

charter; and

"Whereas, the said charter provides for the maintenance of hospitals and other medical institutions of the City and counties therein and provides further for the compensation for the services of the personnel in these medical institutions, and for the tenure of their positions under civil service protection; and

"WHEREAS, the present charter specifically excludes the medical staffs of these institutions compensation for services and protection of positions, and the appointment and removal of these staffs is subject to no definite civil service control or other statutory protection, irrespective of long and loyal service rendered; and

"WHEREAS, there is no justification, social, economic, ethical, or professional, for such exemptions and discriminations in the case of medical staffs of public institutions and clinics, either in the city of New York or its constituent counties, or in any of such medical institutions in the State of New York,

'Be It Resolved, therefor, that this House of Delegates disapprove of the exclusive chaises herein referred to in the city, county and other charters of the State of New York and approve of the principles of providing proper compensation for medical services rendered in public institutions by medical staffs and for their proper protection of the tenure of positions of such medical staffs."

Referred to Reference Committee on New

Business A

31. Medical Care (Socialization of Medicine)

Section 73

DR JOSHIH SLAVIT Kings 'WHTREAS, the remarkable progress and achievements of modern scientific medicine and modern medical educrition make possible medical facilities and personnel sufficient to provide adequate care in health, illness, and disability for all our

people, and
"VHERLAS, despite this medical science, facilities and personnel, millions of the people still receive inadequate medical care and frequently no such care at all, while, at the same time, tens of thousands of our doctors and associated workers are insufficiently employed in their calling and insufficiently remunerated for

the professional services rendered by them and "Whereas, the fundamental cause of this public and professional state of affairs is the economic barrier between the people and their medical care partly caused by the inability of our people to purchase adequate or any medical care for themselves, and primarily due to the private individual or institutional method of rendering medical care on a commodity or fee-

for service basis, and

'WHEREAS the people's health is essentially the people's concern, not less important than education, property protection or any other public service, and therefore fundamentally is a social or state interest and obligation, no longer to be left to the economic and medical uncertainties of our mercantile methods of securing or providing medical care, with all the evils that necessarily follow therefrom,

"Therefore, Be It Resolved by this House of Delegates that we approve the reorganization of medical care and practice so as to provide all the medical care needed by our people, and so as to realize in full the true functions and purposes of medical science and art, at the same time assuring to the medical profession and the allied workers concerned in medical care with economic security and adequate conditions needed for the proper pursuit of their profes sions, and

"Be it Further Resolved, that we endorse the following attached plan as a suggestive basis

for such medical reorganization and for appro-priate legislation"
"I Adequate medical care of the sick and mjured as a social function, right and duty, and not as a private or public charity Curative and preventive means, measures and agencies to be included

- 2 A socialized system of medical care in health illness, and injury, free of fees (a) Under the auspices and with the subsidy of the state (b) I manced by taxation, similar to the public educational system or other governmental functions (c) Operated and regulated by the organized medical and allied professions, the medical and dental colleges, and the official of the existing public health agencies (d) This the existing public health agencies (d) This system to include all medical, dental, pharma centical mursing and other allied services and personnel
- "3 All hospitals clinics, laboratories, pharmacies etc, to be publicly owned and operated institutions, accessible to the sick free of charge The hospitals and clinics to be the Medical centers for ward and ambulatory cases, and to be properly organized coordinated and geo graphically distributed. House sick calls to be received at these centers and to be assigned to local or neighborhood physicians designated to cover specific local areas
- "4 All equipment, supplies, laboratory and other facilities of a medical, surgical, dental, pharmaceutical, nursing or other nature, to be furnished free by the State
- "5 All medical, dental, pharmaceutical, nursing, and allied education to be furnished free by the State
- "6 All duly licensed or registered physicians. dentists druggists, nurses, etc., to be legally entitled to practice under the system as full time practitioners or workers (a) Subject to established rules and reglations of admission and practice (b) With proper safeguards of their rights and privileges under the system and the law (c) With representation and a voice in the operation of the system
- 7 Compensation to be adequate and on a salaried basis (a) Graded according to time of graduation length of service in the system, rank hold and type of work (b) Salary increases and promotions to higher ranks to be based on similar considerations and to be auto matically enforced (c) Civil service (d) Pensions, sickness, old age and other disability and social insurance to be included and applied
- '8 Hours of work to be assigned, regulated and scheduled so as to provide (a) adequate medical care for the sick and injured at all times, (b) adequate time and opportunity for the physicians and allied workers for rest recreation, vacations and further-professional study—with pay
- '9 Organized cooperative groups and group methods to be employed wherever possible Special provisions to be made for rural and other territories inaccessible to regularly organized medical centers
- "10 Individual private medical practice permissible under the same conditions and regulations as in private education, plus existing licenses and requirements by the state"

Referred to Reference Committee on New Business C.

32. Advertising for Gain by Duly Licensed Physician

Section 68

Dr. Julius Ferber, New York: "Whereas, the Education Law, in relation to the practice of Dentistry was amended by the Streit Bill, Assembly Int. 2083, to the effect that a dentist who advertises for patronage, etc., his or her license may be revoked, suspended, etc., and

"WHEREAS, the Streit Bill which was made into law at the last session of the legislature practically prohibits all advertising for gain,

and

"Whereas, commercial advertising by medical practitioners in this State is an evil much to the detriment of the public being that it misrepresents, and even falsifies the qualities of the advertisers and make exaggerated promises not known to be feasible in the light of our present medical knowledge, therefore be it

"Resolved, that the House of Delegates of the Medical Society of the State of New York express its sentiment in favor of initiating through its proper agencies, legislation to amend the Medical Practice Act to the end of prohibiting advertising for gain by any duly licensed physician in the State of New York."

Referred to Reference Committee on New

Business A.

33. Eight Hour Day Law for Hospital Workers

Section 79

"WHEREAS, the primary interest of the medical profession is the protection of the health of the people and the rendering of the best

possible care and treatment of the sick; and "Whereas, good care and treatment of patients depend entirely upon the efficiency of the hospital personnel, without whose service and cooperation our medical services and orders

would be of little avail; and

"Whereas, we as physicians recognize and constantly preach the importance of sufficient rest and relaxation from arduous duty, and that the efficiency of any worker, and particularly the hospital worker, must depend largely upon

the proper hours and conditions of work; and "WHERLAS, the eight-hour day is universally recognized and practiced in all fields of endeavor, enterprise and industry, and is particularly ad-vantageous in reducing the amount of existent unemployment among nurses and other hospital

Be It, Therefore, Resolved, by this House of Delegates that we favor the principle of the eight-hour day for all hospital workers, includ-

ing nurses and internes."

Referred to Reference Committee on New Business B.

34. Practice of Medicine by Cults

Section 72

Dr. Howard, Broome: This resolution was passed at the fall meeting of the Broome County Medical Society;

"Whereas, because of continued efforts on the part of various individual cults, and groups individuals to procure legislation would allow its members to become licensed to

diagnosis and/or treat sick and ailing individuals which the Broome County Medical Society believes is not for the public good and is unfair to those men who through long training are licensed to diagnose and/or treat sick and ailing individuals; and because the present educational law seems to be inadequate to protect the public against unlicensed individuals and groups who do diagnose and/or treat sick and ailing individuals as demonstrated in Broome County this past year by the arrest of twenty-one such individuals all belonging to one group, by the State Educational Department, and the prosecution by the Attorney General's Office, without one conviction, but with wide advertising for this same group.

"Therefore, the Broome County Medical Society instructed its delegates to offer the

following resolution:

"Resolved: that the New York State Medical Society foster a bill to be introduced in the next legislature, changing, adding to, or taking from, the present educational law, such as would license any individual, cult or group, who desire to diagnose and/or treat sick or ailing individuals provided such individuals or group of individuals have received preliminary education and training such as is required to practice medicine, except in the use of drugs, pharmaceuticals and surgery."

Referred to Reference Committee on New

Business C.

THE SPEAKER: Are any Reference Committees ready to report?

35. Report of Reference Committee on the Report of Committee on Trends

Dr. John E. Wattenberg, Chairman, Cortland:

"We agree with the statement of the purposes for which this Committee was established and desire to commend it on the successful accomplishment within a brief space of time on the tasks imposed by the State Society. It would appear that this is the most practical way in which the varied activities of this Society can be brought so effectively before the lay public, and to impress upon the latter the importance of things medical in their daily lives. This is worthy propaganda, much as one may hesitate to employ this maligned term, and the response from both the press and the public demonstrates the wisdom of your Society in having executed plans for doing a piece of work which should have been inaugurated a long time ago. Great credit is due to the Director of the Public Relations Bureau, Mr. Dwight Anderson, for the effective manner in which he has interpreted and successfully handled the delicate tasks entrusted to him. He has cooperated most effectively with various groups both within and without your Society, and deserves unstinted praise for his efforts to bring the doctors and the public together through the medium of the

lay press and otherwise.

We note that sixteen county societies have cooperated with the Bureau in providing means for reaching prominent persons in their communities. This number should be extended to to include all of our constituent County Societies, and steps should be taken to impress the entire membership of the State Society with the importance of the Bureau to accomplish this end. The graphic display of the work of the Public

Relations Bureau at the present meeting is well worth the attention of the membership and provision should be made for similar exhibitions at all future annual meetings of the Society.

"Your Reference Committee further recommends that all publicity emanating from the official committees, especially those on economics and legislation, be disseminated as far as possible through the medium of the Bureau on Public Relations, and that likewise greater use be made of the official State Journal for this purpose. It is suggested, moreover, that definite working plans be developed for definite cooperation between these interested groups and the Bureau,"

I move the adoption of this report. Motion seconded and carried.

36. Age Limitation in Gainful Occupation

Section 69

Dr. SIMON FRUCHT, Kings: "WHEREAS, the general economic insecurity and the speed-up in all lines of work and endeavor result in unnecessary and unprecedented increase in the morbidity and mortality from cardiovascular and other degenerative disorders, physical and mental: and

"Whereas, the medical profession is essentially interested in the preservation of the

health, life, and comfort of the people;

"Be it Resolved, that this House of Delegates of the Medical Society of the State of New York favor the limitation of gainful occupation to the ages between eighteen and sixty, thus relieving the labor market, both skilled and unskilled, by releasing millions of jobs to those who are unemployed though in the prime of life; and "Be it Further Resolved, that we urge the

creation of a pension system with the grant of adequate pensions to all past sixty years to enable them to spend their declining years of life in decent comfort.

Referred to Reference Committee on New Business A.

37. Child Labor Legislation

Sections 39-50

Dr. Simon Frucht, Kings: I have another

"WHEREAS, the Medical Profession has always prided itself upon its interest in the health and

welfare of children, and
"Whereas, child labor and its existence in
any state of the union is indefensible from every medical as well as social and economic

point of view, and "Whereas, there is pending before the New York State Legislature the submission and adontion of an amendment to the Federal Constitu-

tion prohibiting child labor, be it therefore,
"Resolved, that this House of Delegates of
the New York State Medical Society favor the said federal and state Child Labor Amendments and urge upon the New York State Legislature and the Governor the passage and adoption of the said legislation."

Referred to Reference Committee on New Business B.

38. World Peace

Section 75

DR. SAMUEL S. FISCHOFF, Kings: "WHEREAS, the medical profession from time immemorial has claimed its function and reason for exist-ence to be the service of lumanity in the prevention of disease and death and the preservation of life and health; and

"WHEREAS, the general dangerous world unrest and stress now prevailing, particularly in certain parts of the world, make another and more destructive world war a serious possibility. fraught with the devastation of our entire civilization; and

"WHEREAS, the possibility that the United States may be unwittingly drawn into such a world catastrophe is real and menacing to this land and the welfare of the American people; and

"WHEREAS, war in any form and under all conditions always involves the destruction of life and the maining of body and mind, and all the misery and suffering consequent thereto; and "WHEREAS, we of the medical profession are

called upon to repair the physical and mental damage and ravages suffered by the people at war, and we are therefor in a position to realize the horror and inhumanity of war; and

"WHEREAS, the price paid for any possible medical scientific advance made through war must necessarily be at the incalculable cost of human life and happiness, and is therefore futile as well as contradictory to the claims of medicine;

"Be it Therefore Resolved by this House of Delegates of the Medical Society of the State of New York that we are opposed to war in general and the participation of this country in any war in particular, and "Be it Further Resolved that this Medical Society, its manhage officers and represents."

Society, its members, officers and representatives make all efforts for the preservation of peace, and support all other existing movements and forces working in behalf of peace and the prevention of war.

Referred to Reference Committee on New Business C.

39. Child Labor Legislation

Sections 37-50

Dr. Goodfriend, Bronx. "Whereas, the several states have coped unsuccessfully for over one hundred years with the problem of regulating child labor, and have so far failed to pass

uniform laws affecting regulations, and
"Whereas, child labor, by reason of its
cheapness is a powerful weapon in the struggle for industrial markets and therefore its tolerance in one state jeopardizes such regulations as

may exist in another, and

"WHEREAS, the experience of this country with three previous attempts by the federal government to regulate child labor has proven the feasibility of such legislation as well as its effectiveness and unquestioned superiority over the efforts of individual states, its lack of beaurocracy and interference with individual

liberty, and

"WHEREAS, with the death of the NRA and consequent frustration of the last national attempt to curb child labor, the return of that evil is ever more disturbing and menacing, and

"Whereas, we as physicians are peculiarly fitted to estimate the hazards of industrial employment upon the health and development of growing children. That by reason of this knowledge, we, as physicians, should be remiss in our duties as citizen if we stood aloof and failed to urge a measure which will affect the future health of our nation.

"Be It Resolved, that the New York State Medical Society go on record as favoring the adoption of the Child Labor Amendment to the

Constitution of the United States.

Referred to Reference Committee on New Business A.

40. Report of Reference Committee on Report of Legal Counsel

Dr. George A. Leitner, Rockland, Chairman: "The Reference Committee on the Report of Legal Counsel, has carefully examined the very excellent and comprehensive report submitted by Mr. Lorenz J. Brosnan, and highly commend him on the monumental work he and his associates have performed and the results they have achieved.

We feel that the Medical Society of the State of New York is to be congratulated on the

personnel of our Legal Organization.

The question box, the editorial work, the assistance to the members of our Society on special inquiries, have been of immense value to our Society.

It was moved that the report be adopted.

Motion seconded and carried.

41. Report of Reference Committee on Report of Committee on Public Health and Medical Education

Section 14

DR. JAMES H. BORRELL, Erie: "Your Reference Committee believes that the Medical Society of the State of New York is to be congratulated on the continued excellent work of the Committee on Public Health and Medical Education. Your Reference Committee invites attention to the continuance by the Committee on Public Health and Medical Education of its work in graduate education and of its activities through-subcommittees in the field of public health, and of its advance during the year into the realm of syphilis control. We note with satisfaction that the Committee has constantly worked in the solving of health problems by bringing the practicing physician into the field of preventive medicine.

"In view of the excellent work of the Committee on Public Health and Medical Education, your Reference Committee regrets to note a degree of support and cooperation by County Societies not commensurate with that deserved

by the Committee.

Your Reference Committee received the supplementary report of the Committee on

Public Health and Medical Education covering the pneumonia control program.

Your Reference Committee recommends that: the Committee on Public Health and Medical Education be instructed to edit this report for immediate publication as a matter of interest and record showing the accomplishments of the Medical Society of the State of New York in pneumonia control.

Your Reference Committee recommends that: the JOURNAL Management Committee be instructed to print the report upon its receipt from the Committee on Public Health and

Medical Education."

I move the adoption of this report. Seconded and carried.

42. Report of Reference Committee on Report of Committee on Scientific Work and on Report of Committee on Arrangements

Dr. Arthur F. Heyl: "Your Reference Committee on the Report of The Committee on Scientific Work and the Report of the Committee on Arrangements, approves their reports as presented.
"Your Reference Committee especially en-

dorses:

"1. 'Reasonable publicity on medical matters through official channels,' and the open forum

type of program for one evening.

2. The recommendation of Dr. William A. Groat that the 'extra day' program be continued and that its character be suited to the particular facilities of the city where the meeting is to be held and to be arranged by a local committee with the approval of the Committee on Scientific Work.

"3. The Clinical Program as arranged for the

Extra Day' this year.

"4. The Scientific Exhibits, and recommends that they remain placed and open until noon of the extra day.

"5. The unique arrangements made for continuous Theatre Motion Picture Demonstrations.

"Your Reference Committee feels that to report further would be mere repetition of what has already been expressed by Drs. William A. Groat and Gordon Heyd for their Committees, in explanation of the manner in which they so admirably have arranged such an excellent program."

I move that the report be adopted.

Seconded and carried.

43. Clinics for Relief Clients

Section 93

F. HEYL, Westchester: Arthur Dr. "WHEREAS, the regular use of voluntary hospital clinics for routine care and treatment of persons who are public charges, constitutes an unfair burden upon and exploitation of both the private physician and the voluntary hospital and places the attending staffs of the hospitals in competition with themselves and with the

medical profession generally, be it
"Resolved, by the Medical Society of the
County of Westchester that the Medical Society
of the State of New York be hereby requested

to declare it the sense of the State Medical Society that the routine use by public welfare agencies of hospital clinics attended gratuitously by private physicians is contrary to sound social, economic and medical policy, and be it

further

"Resolved, that the Medical Society of the State of New York should undertake through appropriate channels to bring about a change of policy in respect to the use of hospital clinics by welfares agencies throughout the state, substituting therefor the use of private physicians' services in their offices at fee rates mutually determined to be fair and equitable"

Referred to Reference Committee on New

Business B

44. Fees for Medical Services for Welfare Patients

Section 74

HFYL, Westchester ARTHUR "WHEREAS, the problem of relief is in transition from an emergency status to a permanent func-

"WHEREAS, it is desirable that medical and surgical fee schedules that are justifiable only because of emergency conditions should be revised at once, in the light of permanent needs,

therefore, be it

"Resolved, by the Medical Society of the County of Westchester that the Medical Society of the State of New York be hereby requested, through appropriate committees, to undertake immediate negotiations with the proper state agencies looking to the abolition of a state wide schedule of reimbursable fees, and the adoption of a new policy by these agencies enabling and requiring the payment of local welfare officers of medical fees that are in accordance with the prevailing minimum fees in their localities, as determined in each locality by conference between the local welfare officers and the county medical society"

Referred to Reference Committee on New

Business C

45. Physical Education Director

Section 65

DR. ARTHUR F. HEYL, Westchester "WHEREAS, the appointment of a physical education director to the directorship of the Division of Health and Physical Education of the State Department of Education has resulted in the supervision of medical functions by a non medical administrator, and

"WHEREAS, the health of the school child necessarily involves medical considerations even

more fundamentally than considerations of physical education, therefore be it "Resolucit, by the Medical Society of the County of Westchester that the appointment of a layman as Director of the Division of Health and Physical Education of the State Education Department is hereby condemned and protested as unwise from the standpoint of public welfare, and be it further

"Resolved, that the Medical Society of the County of Westchester hereby memorialize the Medical Society of the State of New York to

the effect of the foregoing resolution and recommends that the Medical Society of the State of New York take such steps and sponsor such legislation as may be deemed necessary to require the appointment henceforth of a duly qualified physician to the aforementioned directorship

Referred to Reference Committee on New

Business A

46. Permanent County Society Offices

Section 19

McGoldrick, Kings THOMAS Α "WHEREAS, several County Medical Societies have established permanent county society offices, and

"WHERFAS, several County Medical Societies have appointed lay executive secretaries, and

"WHEREAS, the failure of the Medical Society of the State of New York officially to recognize these offices and lay secretaries has led to confusion delay in the interference with the transaction of business, and consequent loss of

efficiency, therefore,
"Be It Resolved by the House of Delegates of the Medical Society of the State of New York assembled in New York City on April 27, 1936, that whenever the president of the County Medical Society so requests, all correspondence issuing from the State Medical Society office for that County Society be addressed to the County Society office and not to the office or home address of the secretary, and

"Be It Further Resolved that the address of these County Society offices shall be published in the Medical Directory of the Medical Society

of the State of New York"

The resolution as introduced is approved by the Reference Committee and I move its adoption

Seconded and carried

47. Finances of the Society

Sections 10-78

THOMAS Α McGoldrick, Kings "WHEREAS, there exists a state of greatly disturbed financial conditions, it is hereby

Resolved, that the Trustees by a vote of the

House of Delegates be permitted to invest a portion of the funds of the Society in equities."

The Report of the Reference Committee is that a portion of the funds not exceeding forty

per cent be permitted for investment by the Board of Trustees Recommitted to the Reference Committee

48. Transfer of Membership

Section 28

THOMAS McGoldrick, Kings Α This is on the resolution introduced by Dr G S

Towne, Saratoga.

"WHIREAS, the Constitution and By-Laws of the Medical Society of the State of New York do not require for transfer of membership any definite period of residence in the County to which the member wishes to establish residence,

"Whereas, the County to which the Physician transfers has no vote in acceptance of such member, or previous right of investigation, and

"Whereas, the said County to which transfer is made is required to accept responsibility for said physician, even though that physician does not reside in said county for only a few days, and

"Whereas, in Saratoga County, owing to the development of the Mineral Waters and Spa facilities, increased numbers of physicians are coming to our county who practice here for only a short period (a month to three months), and who have very little contact with our native population and the medical profession, and practice essentially Balneotherapy, and

"WHEREAS, members of the Saratoga County Medical Society strenuously object to accepting such short time practitioners into our membership, who later go to other counties and states,

and

"Whereas, we understand the above said Constitution and By-Laws of the Medical Society of the State of New York are at the present time under consideration of revision.

"Therefore, we the members of Saratoga County petition the House of Delegates to consider a By-Law, whereby before a transfer is granted to a member of one County to another, the physician shall establish in the county to which he wishes to transfer a legal residence of at least six months, and maintain such residence for a period of six months in each year."

Your Reference Committee recommends that it be amended that provision be made whereby a member of one county society shall not be permitted to transfer to membership in another county society until he has established a legal residence in the county to which he desires

transfer.

I move its adoption. Seconded and carried.

49. Medical Directory

Section 21

Dr. Thomas A. McGoldrick, Kings: The following resolution was introduced by Dr. Sherwood, Niagara County Society:

"The following resolution was adopted by the Medical Society of the County of Niagara at a regular meeting January 14, 1936.

"Whereas, the Directory published each year by the Medical Society of the State of New York costs approximately \$1.15 to prepare and publish, and

"Whereas, it serves no useful purpose to over ninety-five per cent of the State membership, and

"Whereas, it is in part a duplication of information already available in the A.M.A. Directory, and

"WHEREAS, we believe this money could be more advantageously expended in enlarging the services the State Society can perform for its members and the component County Societies; therefore,

therefore,
"Be it Resolved that the Medical Society
of the County of Niagara requests the State

Medical Society to discontinue the publication of the directory for general distribution,

"Be it Further Resolved that the directory be made available for those who have need of same, to be ordered and paid for similar to the procedure of the A.M.A.

"Be it Further Resolved that a copy of this resolution be sent to each County Medical Society in New York State, and to the Secretary of the State Society."

Your Reference Committee disapproves of the resolution. I move the adoption of this report.

Seconded and carried.

50. Child Labor Legislation

Sections 37-39

DR. THOMAS A. McGOLDRICK, Kings: This is a resolution introduced by Dr. Simon Frucht of Kings County:

"Whereas, the medical profession has always prided itself upon its interest in the health

and welfare of children; and

"WHERLAS, child labor and its existence in any State of the union are indefensible from every medical as well as social and economic point of view; and

"WHIREAS, there is pending before the New York State Legislature for confirmation and adoption an amendment to the federal constitu-

tion prohibiting child labor;

"Be it Therefore Resolved, by this House of Delegates of the State Medical Society that we favor the said federal and state child labor amendment, and urge upon the New York State Legislature and the governor the passage and adoption of the said legislation."

Your Reference Committee reports and recommends that there is not sufficient evidence before the House of Delegates to warrant action and recommends that action on this resolution be therefore postponed.

Dr. Joseph Slavit, Kings: I can't quite agree with the chairman of the Committee that there is not sufficient evidence to warrant the passage of this resolution. The fact remains that there is an amendment to the Federal Constitution prohibiting child labor, and it is before the several states of the Union. The fact remains that it is before New York State, and the fact remains that we as the medical profession ought to support such an amendment and see that such an amendment is carried by New York State so as to make it effective as a national policy.

DR. FREDERIC E. SONDERN, New York: We are living through a period that distresses some of us perhaps more than others. Some of us, and I hope a majority, still favor state rights. New York is perfectly competent to make any child-labor laws it wants, and, thank God, it can enforce them, too. Now, if Florida or Mexico does not, it is just too bad; but child-labor laws in New York City from a point of justice should be very different from child-labor laws in the State of Kansas. They have a situation in Kansas where for six weeks it is a good thing to employ children and it does them no harm during their school holiday. This is another instance of where our federal Govern-

ment of today is attempting to rob the state

of its rights, and I am against it

After free discussion by Doctors Harry Aranow, New York, Samuel S Fischof, Kings, and Thomas A McGoldrick, Kings, a motion to vote on the question was carried. It was moved seconded, and carried that the report of the Reference Committee be adopted

51 Official Pronouncements of County Societies

Section 27

DR THOMAS A McGoldrick, Kings We have a resolution presented from the Medical

Society of the Bronx

WHEREAS, the by-laws of the Medical Society of the State of New York, Chapter 5-Section 3-page 15, state that the Executive Committee shall provide for the publication of official pronouncements of the component county societies when requested by such a society, and

WHERFAS, the Bronx County Medical Society did officially request such a publica

tion of one of its pronouncements, and

WHEREAS the Editor of the STATE JOURNAL refused to publish in the STATE JOURNAL such

pronouncement.

"Be It Hereby Resolved that the Executive Committee of the State Society be apprised of this failure of the Editor to honor such requests, and that the Executive Committee of the State Society take the proper steps to remedy such

breach of our by laws"

Your Reference Committee is informed by the Assistant Secretary, Dr Peter Irving, that the matter introduced in the resolution was re ferred to the Executive Committee of the State Society and the action taken was upon the authority of that committee and the Bronx County Medical Society was so informed Since this is a matter of administrative policy, the Reference Committee advises no reason to recommend any action thereon

I move the adoption of that report

Seconded and carried

52 Hospital Management and Medical Staff

Sections 24-80

DR. THOMAS A. McGoldrick, Kings The following resolution was adopted at the regular stated meeting of the Medical Society of the County of Kings on April 21, 1936

WHEREAS, the hospital has become an in creasingly important factor in the provision of

medical care, and 'Whereas the authority of management is almost universally in the hands of laymen, and "WHEREAS, the professional care of the sick is essentially a medical function and

WHEREAS, the public interests will be better served when medical opinion evaluates the professional competency of candidates for appoint-

ment or promotion and

'WHEREAS, changes have been made on the medical staff and medical personnel organization of some hospitals without due consideration of the opinion of the physician constituting the medical staff, and

WHERLAS, changes in staff organization and personnel have been made which were not in the public interest, and often have been in fact acts of injustice to physicians who, by honorable and faithful service, had acquired a moral right to the continuance of such privileges and benefits as flow out of the hospital connec

tion, and 'Whereas a correction of such wrongs is possible only through the action of an authorita tive body, qualified and constituted to speak the opinion and will of the medical profession

Therefore, Be It Resolved, that hereafter only those institutions which recognize, acknowledge and observe in practice no change in medical staff or personnel organization without recommendation or approval of its Medical Board shall be regarded as maintaining ap proved status and

Be It Further Resolved that the President of each County Medical Society be authorized to appoint an impartial committee for the consideration and arbitration of any differences of opinion which may arise between the lay board of any hospital and its Medical Board and

Be It Further Resolved, that it shall be considered unethical for any physician to accept appointment to fill a vacancy in any hospital staff or medical personnel organization which has been created by the lay administration in disregard of the principles of equity and justice herewith declared and

Be It Further Resolved, that a copy of this resolution be addressed to The American College of Surgeons with the request that due re

gard be given thereto, and

Be It Further Resolved, that the Delegation representing the Medical Society of the County of Kings in the annual meeting of the House of Delegates of the Medical Society of the State of New York be instructed to introduce these resolutions and actively support their adoption in the next session which convenes April 27, 1936"

Your Committee reports concerning the reso

lution of the Medical Society of the County of Kings, presented by Dr Joseph Raphael, Secre-It approves the adoption of the first five clauses of the preamble and recommends the elimination of the sixth and seventh, and the adoption of the following resolution in heu of those presented in connection with the preamble as approved Let me say that the sixth and seventh represented that changes have been made against the public interest and that a correction of such conditions is possible only through the action of an authoritative body

In place thereof the Committee recommends

Therefore, Be It Resolved that the Medical Society of the State of New York records its disapproval of the above practices and recommends that the final authority in hospital management introduce changes in medical per sonnel or general professional policies only after due consultation with a Medical Board or other constituted professional authority of the hospital

I move the adoption of that resolution

THE SPEAKER The Reference Committee's

substitute resolution is before the House. Is there any discussion?

Dr. NATHAN RATNOFF, New York: If I were the delegates I would rather destroy entirely the resolution than adopt the one recommended by the Reference Committee, because the Reference Committee recommends only consultation with the Medical Board. I assure you after you consult them very often they will disregard you more often. Now, let us be entirely frank. Do you want the resolution, that the Board of Directors who have power to appoint men who are approved by the Medical Boards of the Hospital or men that you don't want? But simply asking them to consult ussure, they will be eager to consult us but you won't find the consultation very profitable.

Dr. FARMER: I would like to say in favor of the original resolution that it is about time that the medical men spoke up on this question of hospitalization. We know that the Board of Directors, the lay Board that controls our hospitals, contributes about seven per cent of the income to an institution. The City provides them sixty per cent at the present time. The fees gotten through ward patients and private cases provides the rest. Here is, then, a governing body that contributes about seven per cent controlling one hundred per cent of the hospital appointments. It is about time that we speak up.

THE SPEAKER: Is there any further discussion?

Dr. Louis Lewis, New York: I am heartily in favor of either adopting the resolution as phrased or not adopting anything at all for the simple reason that it is about high time that we physicians show the powers that be, the financial powers that be, who control our actions as physicians in the hospital,—we must show them that we are not to be pussy-footed with; that we are just as valuable to the hospital as they are. It is about time to show them that we are a power. If you are going to kowtow to them you may just as well give up every bit of freedom, and I think the resolution should be adopted as presented.

Dr. Charles H. Goodrich, Brooklyn: The resolutions that were submitted by the Medical Society of the County of Kings seem to me to have been emasculated. I believe the resolutions were very broad and very belligerent in note. Some men in the County of Kings thought it was very necessary to have that note put in, but I can tell you from experience in hospital administration and hospital work that the word "consultation" is very, very indefinite and were that put into the hands of some hospital executives they would consult and never accept the recommendation of the Medical Board. I would therefore, recommend the recommitting of this report so that there will be a more definite instruction to the hospital superintendent and lay boards of what we believe would be the ideal procedure.

THE SPEAKER: The motion to recommit is before the House for the reason stated. Those in favor of recommitting this for consideration further by the Reference Committee will kindly say "aye"; those opposed, "no." It is so ordered.

53. Anesthetics as Practice of Medicine

Section 15

Dr. Thomas A. McGoldrick, Kings: I have another resolution from Erie on the subject of otherwise, anesthetists, technicians or licensed to practice medicine:

"At a meeting of the Medical Society of the County of Erie, held April 20, 1936, the following preambles and resolution was adopted:

"WHEREAS, at the 1933 annual meeting of the House of Delegates of the Medical Society of the State of New York the following resolutions were passed:

"Resolved, that the Medical Society of the State of New York affirm that the giving of an anesthetic constitutes the practice of medicine and insist on the strict observance of the provisions of the Medical Practice Act without subterfuge or evasion.

"Resolved, that if it is the opinion of the Attorney-General that non-medical technicians practicing anesthesia are not violating the law under present conditions, that the proper procedure be instituted to obtain legislation which will include anesthesia in the practice of medicine or limit the administration of anesthesia to duly licensed dentists or physicians.

"WHEREAS, the Medical Society of the County Erie has received no information of any action taken pursuant to the foregoing resolutions, therefore be it

"Resolved, that the Medical Society of the County of Erie instruct its Delegates to present to the House of Delegates at the 1936 Annual Meeting a recommendation that the proper committee of the Medical Society of the State of New York be directed to draft and promote at the 1937 session of the New York State Legislature a bill to limit the administration of anesthesia to duly licensed physicians and dentists, except in cases of emergency.

Your Committee reports that it is of the opinion that the number of physicians qualified as anesthetists at the present time is not sufficient to take over the work now being done by trained non-medical anesthetists throughout the state, and, therefore, cannot approve the resolu-

tion for immediate enactment.

We further recommend that the matter of training physicians as fully qualified anesthetists be referred to the Committee on Medical Education of the Medical Society of the State of New York for action.

I move the adoption of this report.

Dr. HARRY ARANOW, Bronx: I just want to point out that a year or two ago when my Committee introduced a bill in Albany to make it illegal for nurses to give anesthesia, we received hundreds and hundreds of protests from medical boards and surgeons throughout the

THE SPEAKER: Are you ready for the question? Those in favor of my putting the question will kindly say "aye"; those opposed, "no. Carried. The question is before the House:

Shall the report of the Reference Committee with its recommendations be adopted? Those in favor will kindly say "aye"; those opposed "no". The report is lost.

The original resolution is before you. What is your pleasure?
DR. THOMAS A. McGoldrick, Kings: The

original resolutions are as follows:

"At a meeting of the Medical Society of the County of Erie, held April 20, 1936, the following preambles and resolution was adopted:

"WHEREAS, at the 1933 annual meeting of the House of Delegates of the Medical Society of the State of New York the following

resolutions were passed:

"Resolved, that the Medical Society of the State of New York affirm that the giving of an anesthetic constitutes the practice of medicine and insist on the strict observance of the provisions of the Medical Practice Act without subterfuge or evasion.

"Resolved, that if it is the opinion of the Attorney-General that non-medical technicians practicing anesthesia are not violating the law under present conditions, that the proper procedure be instituted to obtain legislation which will include anesthesia in the practice of medicine or limit the administration of anesthesia to duly licensed dentists or physicians."
"Whereas, the Medical Society of the County

of Erie has received no information of any action taken pursuant to the foregoing resolu-

tions, therefore be it

"Resolved, that the Medical Society of the County of Eric instruct its Delegates to present to the House of Delegates at the 1936 annual meeting a recommendation that the proper committee of the Medical Society of the State of New York be directed to draft and promote at the 1937 session of the New York State Legislature a bill to limit the administration of anesthesia to duly licensed physicians and dentists, except in cases of emergency."

THE SPEAKER: The resolutions are before you

now for adoption or rejection at your will. Those in favor of the adoption of the resolutions say "aye"; those opposed, "no". Carried.

54. Amendments to Constitution and By-Laws-Associate Members, Auxiliary Members, Etc.

Section 20

DR. E. C. Podvin, Chairman: In relation to amendments to Constitution and By-Laws in regard to various classes of membership, under this heading, your Committee has considered four resolutions introduced by Dr. Farr of New York referring to special classifications of membership for

- (a) Medical men in full time positions not in practice;
- (b) Recent graduates in medicine;
- (c) Medical men in Government services; and
- (d) Non-medical scientific men interested in some way in medical problems.

We believe that under the Constitution of the Medical Society of the State of New York, the latter group could not in any sense be entitled to membership and therefore recom-mend the disapproval of this resolution.

In reference to the three groups of physicians referred to in the resolutions, your Committee feels that these physicians, if they are desirous of becoming members of the New York State Medical Society must pay the annual dues, but that the payment of local dues to the County Society is entirely within the jurisdiction of the County Society to which

they apply.
We therefore recommend that all four of these resolutions be disapproved, but further recommend that the matter of special arrangements for membership for full time physicians not in practice, for recent graduates and for medical men in Government positions be taken under consideration by the Committee on Revision of Constitution and By-Laws.

I move the adoption of the report of the Reference Committee.

Seconded and carried.

DR. GORDON HEYD, New York: I move you that the Council be directed to appoint a committee on revision of the Constitution and By-Laws.

Seconded and carried.

55. Physiotherapy

Section 25

DR. E. C. Popvin: Your committee after consideration of the resolution submitted by Dr. Kovacs of New York County recommending that the granting of further physiotherapy licenses be discontinued, finds that the present law is acting as an effective barrier to the entrance of non-medical physiotherapists into practice. The State Board of Regents is powerless to make any effective change in its method under the present law. To effect the changes asked for in the resolution would require a change in the law.

We deem it unwise to open up this matter on the floors of the Legislature and therefore recommend that the resolution be disapproved.

I move the adoption of that report. Seconded and carried.

56. Licensing Foreign-Educated Physicians Sections 13-17-85

Dr. E. C. Popvin: Your Committee has considered two resolutions introduced with the object of recommending a reduction in the number of licenses issued by the State Department

of Education by endorsement.

It is evident that the reason for the increase in licenses so issued has been the influx of physicians who have been forced out of their countries, particularly Germany, since 1933. We have ascertained that the Board of Regents issues licenses without examination only to graduates of schools whose standards comply with the requirements of the New York State Board of Regents as regards pre-medical as well as medical education. In the period 1917 to November 1934 inclusive, 264 were so licensed from foreign countries, and 246 from Canada. The greatest increase has come since 1933 and is reflected in the licensing of 180 German physicians from November 1, 1934 to March 20, 1936. Naturally most of these physicians stay in the larger cities, near the ports of entry, par-ticularly in the City of New York. There can be no question that this does disturb the economic situation to some extent.

We must not forget that medicine is a profession which should be open to all who can satisfy the professional requirements for its practice. On the other hand, it has been intimated that in certain instances the examination into the credentials and experience of applicants for licenses without examination has not been sufficiently thorough and has resulted in some applicants gaining a license to practice in this manner who had not the professional experience to warrant it.

It was a realization of these facts which led to the enactment of Section 51 of the Educa-

tion Law.

We have therefore taken the resolution introduced by Dr. Kaliski and made certain changes in order that it may conform with this thought.

"WHEREAS, it has become apparent that the number of physicians obtaining licenses to practice medicine in the State of New York by endorsement of their credentials and without requiring the candidates to undergo a professional examination is increasing at a great rate; and "Whereas, the maintenance of high profes-

sional standards and public health and welfare require that physicians be required to establish their competence by submitting to a thorough examination before being licensed to practice

medicine; and

"WHEREAS, there has arisen doubt in the minds of some physicians who have been associated in professional work with some of the foreign educated physicians so licensed by endorsement only, as to the professional attainment of such physicians and whether they deserve licensing without a professional examination,

"Therefore, Be it Resolved, that the Medical Society of the State of New York deplores the condition which seems to necessitate the granting of licenses by endorsement in large numbers and requests the authorities of the Department of Education of the State of New York to use the utmost discretion in the granting

of such licenses."

I move the adoption of the report.

THE SPEAKER: You have heard the resolution. Dr. HARRY ARANOW, Bronx: It seems to me that the Reference Committee has emasculated the resolution. I want to inform the House of Delegates that the Legislative Committee in your behalf introduced a bill which is now in the Legislature, which would prohibit except in a few instances the practicing of medicine without a license. The bill is now in the Assembly Rules Committee, and if the House wants to have it passed it would be a good idea to support it. But to merely depend on the courtesy or the good will of the Regents is not a very safe proposition.

I move that the House of Delegates go on record in favor of the Bill number 1163 which would prohibit the foreign physician practicing here without an examination, with a few exceptions satisfactory to the Department of

Education.

Motion seconded.

THE SPEAKER: A motion to substitute for the resolution of the Reference Committee has been made. You have heard it. Are you prepared to receive the substitute? Those in favor of receiving and discussing the substitute kindly

say "aye"; those opposed "no".

Carried. The substitute is before the House.

What is your pleasure?

Dr. Frederic E. Sondern, New York: I believe before we can conscientiously vote on this substitute motion we should know the contents of this bill.

Dr. David J. Kaliski, New York: I heartily agree with what Dr. Sondern has said. There is nothing contradictory or antithetical before the House in the bill that has been introduced in the Legislature. I think that we should call attention of the State Department of Education to the scandalous condition that is permitting so many men to get a license without a proper examination. That has nothing whatsoever to do with the bill that has been introduced making an examination a necessity. I believe that the resolution should be passed. We should also endorse the bill, if it is a proper bill, that has been introduced in the Legislature.

THE SPEAKER: The question before the house

is on the substitute motion.

Dr. ARTHUR J. BEDELL, Albany: May we have our legislative agent, our executive officer, Dr. Lawrence, come before the House and explain it so that we may all understand that upon which we are to vote? I make that as a motion.

Seconded and carried.

Dr. LAWRENCE, Albany: The bill that is before the Legislature at the present time requires that any person who graduates from a foreign institution, whether he be foreign or not, must take the examination, the same State Board examination that is exacted of the student who studies medicine in New York at the present time, before being granted a license, with these exceptions: that where we have established reciprocity-and I believe there are two institutions that are registered with our Board of Regents—graduates from institutions registered with the Board of Regents may have their license endorsed in this state at the discretion of the Board of Regents. That is the reciprocity which, of course, we enjoy with Canada.

A question was asked as to whether an American student completing his education in Paris, for instance, would be able to secure a license in New York State. Yes, provided he takes a State Board examination that is required of any other person. The object of section 51 of the Education Law which gives the Regents the privilege of granting a license to persons of eminence, a matter in their discretion, has not been interfered with; but this bill does very definitely make it necessary for persons coming into this state and seeking a license to take the State Board examination required of any

other citizen of the State.
DR. E. C. PODVIN, Bronx: It was the understanding of your committee that this resolution had reference only to Rule 51, or that rule which allows physicians of eminence and of standing to be registered without examination, and it was in reference to the alleged laxity on the part of the Department of Education in opening too wide this gate, and not examining sufficiently into the standing of the men so admitted, that the recommendations were made.

THE SPEAKER: Nevertheless, the motion

before the House is on the substitute. Are you ready for the question? The substitute was made by Dr. Aranow, not as a member of the delegation from the Bronx, but as the chairman of the Committee on Legislation.

Those in favor of this substitute will rise; those opposed will rise. The substitute motion is adopted and is so ordered by the House.

57. Malpractice Indemnity Insurance

Sections 7-18

DR. B. WALLACE HAMILTON, Chairman, New York: Your Reference Committee approves of the resolution introduced by the Insurance Committee relating to the change of the majoractice indemnity insurance to the Yorkshire Indemnity Company. Your Committee has given this matter detail study and approves the action taken by the Council, the Executive Committee, the Insurance Committee, and the Counsel of the Medical Society of the State of New York. I move its adoption.

DR. JAMES M. DOBBINS, Queens: As chairman of the delegation of the County of Queens, I am instructed by my Society to oppose this

change in the insurance carrier.

THE SPEAKER: Dr. Dobbins, there is no resolution before the House about change. There

is a recommendation.

Dr. Dobunns: I am making that statement. As an individual I am criticising and I should like to offer my criticism of the change in carrier. In the first place I believe that the resolutions as passed by the House of Delegates on April 3, 1933 contained facts which were lost sight of or forgotten about in the promulgation of the new insuring clause. The new form of policy seems to be in some respects contrary to the resolutions approved by this House of Delegates in April of 1933. The insuring clause in the Yorkshire definitely uses the word in the first insuring clause—first personally seen. The doctor must first personally see the case. In the resolutions approved by the House of Delegates the word "first" is not used. The insurance clause of the Yorkshire further goes on and says—exceptions; if there is a promise made the insurance company, the Yorkshire, are not liable. If there is a claim made for fraud or deceit the insuring company are not liable. There are additional exceptions in this insuring clause.

The Yorkshire Indemnity Company by their own statement indicate that they have had a continued underwriting loss beginning in 1928 and running through to 1934, an ever increasing amount, from \$82,293.00 to \$237,073.00 in 1934.

The Yorkshire Company by their own statement as of December 1935 over the signature of the president indicate that they have had a further decrease in premiums of over a quarter of a million dollars. They have had a decrease in trade loss of over \$69,370, and a consequent decrease in reserves of over \$68,000.

The contract is very well-worded. It definitely states that there can be no misinterpretation on the verbiage. I should like to call attention to the fact that the English language is very well defined when it comes to court, and that the case of Preston vs. the Aetna Insurance Company, 193 New York, Volume 144, in which the word "claimed" was used in the contract,

and by subterfuge they tried to get around that, the court ruled that the commonsense language used in a contract must be interpreted. Likewise in a case against the North American Insurance Company, 269 New York, Volume 90, the same thing stood an interpretation. The court ruled that the verbiage used in the contract must stand as is. More could be said in reference to the verbiage of the contract, but as financial matters stand today, they indicate in my opinion that we are possibly behind the eighth ball in this matter. We are insuring in a company that has had a continued loss for eight years. What are you going to do, give them \$350,000 worth of business now, an untried business, something we know nothing about, that we are personally not acquainted with? Nor are they equipped by virtue of their offices to do the proper investigating work. They probably will eventually develop that, but at

the present writing they are not.

It has been represented that one of the insurance rating companies has given it an A plus rating. That is true, but that on a 1934 basis. We are doing business in 1936. Much can have changed during that time. A ratings were given to plenty of other companies which subsequently

have fallen by the wayside.

There has been room for doubt as to whether this matter was handled in the proper form. The constitution of the State Society definitely states that no Standing or Special Committee shall incur or initiate any policy or commit the Society to any policy unless the same has been expressly approved by the House of Delegates or the Council or the Executive Committee. Letters circularizing the county would indicate that this matter was consummated before it was officially approved. True, there was a meeting of the Executive Committee, a special meeting on July 19 for the express purpose of terminating the arrangements with the Aetna. That was done. Likewise the Insurance Committee was empowered or given authority to act with power. It went ahead, It consummated the deal, as evidenced by a letter that was sent on July 25, a few days after the meeting, ten days later, stating that the contract or the agreement, rather, between the two parties was terminated. There is no record to indicate that the Council or the Executive Committee officially approved of the Insurance Committee's activities until along some time in December. It is true enough that the Society has been circularized with a letter from the parent organization in England, stating that all liabilities as far as they exist in the same way will be taken care of by the parent company. That is equivocal in its meaning and possibly may be said to be of no legal value or standing in this country.

I think it is about time that this large body, with such a vital issue at stake, should look into this matter. Eight thousand doctors certainly have control of a matter that is as vitally im-

portant as this is to their welfare.

THE SPEAKER: The motion before the House is on the adoption of the Reference Committee's report. The Reference Committee approves the resolution introduced by the Insurance Committee relating to a change of the malpractice indemnity insurance to the Yorkshire Company. The Reference Committe has given this matter

detailed study and approves the action taken by the Council, Executive Committee, Insurance Committee and the Counsel of the Medical Society of the State of New York.

That is the question before the House. Shall that be adopted? Is there further discussion?

Dr. ARTHUR J. BEDELL, Albany: Is it permissible to postpone action on this until we hear all of the details connected with this insurance problem?

THE SPEAKER: Everything is permissible that the House of Delegates vote. The necessity for it ought to be explained since the matter has been before a Committee. However, I am ready to hear any motion you wish to make.

Dr. Arthur J. Bedell, Albany: I move you, sir, a postponement of the receipt and action on this Committee's report until we have heard the other reports relating to insurance work. Dr. Milton J. Goodfriend, Bronx:

second it.

THE SPEAKER: The motion is postponed until such time as we have heard the reports on the other resolutions that have been referred to this Committee. Are you ready for the question? Those in favor kindly say "aye"; those opposed, "no." There is a divided House. Those in favor

kindly rise, those opposed kindly rise.

Those in favor of postponement have it, and it is so ordered. The matter is postponed until the other matter on this insurance question has been reported upon by the Reference Committee.

Dr. Milton J. Goodfriend, Bronx: Mr. Speaker and gentlemen: In taking care of any system of group malpractice insurance, the prime requisite should be adequate and proper coverage at the lowest possible rate. The reason for bringing this matter before you is that in our opinion these two matters have not been sufficiently cared for in the new contract of the present carrier. It is possible at the present time in various sections of the state and in New York City to obtain similar malpractice insurance at rates lower than those charged by our present carrier. It is also possible at the present time to obtain coverage greater than the present carrier gives to us. When this change was consummated and when the present insurance representative of the State Medical Society was invited to appear before a committee of the Bronx County Medical Society investigating the matter of insurance, his statement was that we couldn't go out and sell this insurance, and, therefore, we grabbed the first one that was offered that we thought was good. There was no attempt to solicit other companies and find out whether this particular type of policy should be obtained or could be obtained at rates lower than those at present quoted, or quoted previously by the Aetna Insurance Company.

Moreover, the Aetna Insurance Company had written this particular policy for ten years and apparently had written it satisfactorily to the membership of this Society, states that no attempt was made at any time by any members of our Insurance Committee to meet with them, other than the insurance representative, to discuss with them rates or terms of policy, and that they were willing and are at present will-

ing to discuss these terms.

As far as proper coverage is concerned, Dr. Dobbins has called your attention to several facts, but possibly two instances might tell you how improperly covered we are in the present contract. If you do not personally see and diagnose a case, but if your office at a time when you are occupied elsewhere should send somebody to see that patient, and if in the course of treatment by this substitute, even though you may have seen that patient before but did not diagnose the condition at that time, and if a malpractice suit is instituted against you, according to the terms of this policy, you would not be covered.

If you were to operate on a patient in an emergency and subsequently it was claimed that you had not been given consent for this operation, that would be a claimed assault, and according to the terms of your policy you

would not be covered.

Now, in reference to how the cost of this policy was obtained, according to our insurance representative this policy is to be written on a cost plus basis; it was to be the actual cost as figured by the insurance company plus two and a half per cent underwriting profit. According to Mr. Wanvig and the Actna, they have never been able to waive this two and a half per cent profit yet one of the large factors introduced in bringing the cost to a point which the present Insurance Committee felt was too high and as a result of which the contract with the Aetna was ended is a tremendous charge, an annual charge for the writing of your policy plus its renewal, running between seventeen and a half and twenty per cent, in addition to which there is a monthly stipend paid to our insurance representative for taking care of part of the work.

We feel that in order that proper coverage at lower rates may be given the members of this Society, a Committee of Seven as recommended in our resolution should be appointed by the President to look into this matter and to report

back.

Dr. Gordon Heyd, New York: Mr. Chair. man and members of the House of Delegates: There are no facts that the adversary of this plan can have that your Insurance Committee could not have had. Certain facts are open to differences in interpretation and certain facts can be willfully suppressed. I now propose to tell you, with your indulgence, briefly the story of malpractice indemnity insurance.

Your Insurance Committee, of which I have been a member, for 11 years with the exception of one year, have not been satisfied with the Aetna policy, because in making the application for the insurance, you sign an order blank which unequivocally binds you to certain conditions, and four or five years later if you have a malpractice case you find that under your original warranty or order, you could not

be indemnified.

Your Insurance Committee met in the latter part of May and determined what a good policy should be; that it should be controlled by the Medical Society of the State of New York and all moneys received should be utilized in computing the cost. The Aetna never allowed your Society to benefit by excess premium; for example I pay \$80 for a hundred thousand dollars malpractice insurance, \$30 for the basic policy—5000—15000 and \$50 additional for the excess limits. The difference between \$30 and \$80 is not utilized by the Aetna in reducing the cost of our base rate.

We felt that the indemnity insurance of this Society should be the major interest of the carrier; there should be no agency for insurance except that constituted by your Society; that every restriction should be in the policy, not in an order blank; that the detail work should be done by the Insurance Committee and the insurance representative with legal counsel; that your insurance representative could employ local agents and local counselit it is highly desirable in certain counties to have a local attorney; that there be set up a triplicate voucher system so that at the end of the year we would know what our insurance

It is true that we never met with the representatives of the Aetna Insurance Company. There was never any need of it. We had an insurance representative who did that for us.

You have a better policy today under the Yorkshire than under the Aetna because half the members were never protected under the Aetna. When they went away on Wednesday afternoon and played golf and left two other doctors to look after their business, they were not protected; because the specific all-covering clause in the Aetna was a "patient personally seen by the physician." Whether it is previously seen or not, is immaterial.

Under the new policy with an additional premium of one-sixth, it allows you to have a temporary unnamed assistant take care of your business for sixty days in any calendar year, and you are absolutely protected if somebody calls up your office and asks the name of the

doctor.

The next thing is, everything should be in the policy. Now, let us break up this insurance dollar. This is a unique insurance scheme, gentlemen, in that the company no matter who it is, whether it is good or whether it is bad, gets two and a half per cent profit. Imagine what happens to one insurance dollar. and a half cents goes to the Aetna as profit. Under expenses is where the loading can take The difference between the profit plus expense means how much out of each dollar is there to protect you. Now, then, the profit is two and a half per cent. That is fixed. expense ratio proposed by the Aetna last May was thirty-five per cent, leaving sixty-two and was unity-nee per cent, tearing sixty-two and a half per cent out of each dollar to protect you. With the Yorkshire it leaves sixty-six cents; with the United States Casualty fifty-four; with Glens Falls fifty-five; with Hartford sixty-one, and with the New Amsterdam In other words, for your dollar fifty-nine. you have a greater protection in the Yorkshire than in any of the other companies.

Now, four times the Aetna have come to us with a demand for an increase in rates, and when justified we have always recommended the increase. The Aetna proposed to go back to 1928 and reduce our coverage the difference between sixty-six cents on each dollar to sixty-

two and a half cents.

At no time has there been the slightest jeopardy for your indemnity; because out of 2,380 suits disposed of the Actna estimated the cost at \$1,671,000. The total cost, however, was \$1,027,000. There was overloading of the reserves to the extent of \$643,000, and in May Mr. Wanvig got that reduced by \$156,000, which reduced the cost of your policy \$3.

The insurance committe on July 19 met with Mr. Brosnan and Mr. Wanvig. We came to the conclusion that the increase proposed by the Actna of \$7, subsequently reduced to \$4, was not called for under the conditions of the business. Action had to be taken. We had to serve six months' notice on the Actna. If we did not we could not serve notice on them until the first of July 1936 and would have been obligated to accept the raise of \$4. We, therefore, asked the President to call a special meeting of the Executive Committee and made our recommendations to the Executive Committee.

The adversaries of the new carrier point to the fact that in ten years the combined loss and expense ratio of the Yorkshire Indemnity Company has always been above the hundred, and that is correct. But they did not tell you that the Aetna in the same ten years was under the hundred line only twice, and that their ten years' loss and expense ratio was 102,4. The Fidelity and Casualty was under the line only twice with an average of 105.4, and so with Glens Falls, Great American, Maryland, New Amsterdam, Travelers, and the U. S. Casualty. Now, those figures of loss and ex-pense ratio are not the all-important factor in this insurance business. It only shows that in the loss and expense ratio item all the companies were losing money. No mention was made of the income that the company derived from their investment policy.

At the regular meeting of the Executive Committee the minutes of the Special Meeting were approved. The Council Meeting on the second Thursday in December received the report of the Executive Committee which had approved of the action of the Special Committee, which in turn approved of the recommendation of the Insurance Committee—and yet it is said that the Council exceeded its authority.

Dr. FREDERIC E. SONDERN, New York: Mr. Speaker, gentlemen: I stood on this platform years ago and presented to you the insurance scheme which you adopted. I have had a fatherly interest in it since. I regret it has occurred. I would like to call to your attention two things: first, it has been stated that the business policy, so-called, of the Aetna, took the same place as this additional policy issued by the Yorkshire. That is not so. The additional policy of the Yorkshire gives you the privilege of a temporary assistant without naming him; in other words, anybody that you want at any moment, by telephone or otherwise, is authorized under your Yorkshire policy to practice for you, and you are indemnified against any action. Under the business policy of the Actna-and I know because I hold one and I have held one for years-you have got to specify your assistants and you are not covered unless the work in question is done by the specified assistants.

Those who have sat in the Councils of the Society during the years from the beginning to the present know that on many occasions I have appeared before the Council to plead for or to object to certain action in this insurance matter. I cite that only because I am jealous of this thing, having been one of the original sponsors. I have gone through this controversy during the last year. It has been during my presidency. You have heard many details. I hope you have trusted me during the period that I have served you. I am not going into details, but I can assure you, with my best intention and with my best purpose, which have always been in the interests of the Society, that what has been done relative to the increase. what has been done relative to the insurance matter has in my opinion been well done.

After free discussion by Drs. Arthur J. Bedell, Albany; William D. Johnson, Batavia; Charles H. Goodrich, Brooklyn; Harry Aranow, New York; Milton J. Goodfriend, Bronx, the question was put before the House of Dele-

gates by the Speaker as follows:

THE SPEAKER: Are you ready for the question? The question before the House is the adoption of the Reference Committee's report, to wit: "Your Reference Committee has given detailed study to the resolutions introduced by Dr. Dobbins of the County of Queens in relation to the change in malpractice indemnity insurance to the Yorkshire Company, and the Reference Committee disapproves thereof. The Reference Committee believes that the change was given careful study by the Council, Executive Committee and Counsel of the Medical Society of the State of New York."

Those in favor of the question being voted upon say, yes; those opposed, no. Carried.
We shall vote on it. Those in favor say "aye"; those opposed, "no."

The resolution of the Reference Committee is carried. The adoption is called for. Those in favor will kindly rise; those opposed will kindly

The speaker again says the resolution is

carried.

Dr. B. Wallace Hamilton, New York: I would move the approval of the original recommendation of the Reference Committee.

Motion seconded.

THE SPEAKER: There has been a motion seconded during the afternoon to postpone action upon the report of the Reference Committee until this had been disposed of. Motion is now made bringing it before you, and it is before you for vote. Are you ready for the question? The question is called for. The question is on the original recommendation presented by the Reference Committee on a resolution introduced from the Insurance Committee; to wit:

"Your Reference Committee approves of the resolution introduced by the Insurance Committee, relating to the change of the Malpractice Indemnity Insurance to the Yorkshire Indemnity Company. Your Committee has given this matter detail study and approves the action taken by the Council, the Executive Committee, the Insurance Committee and the Council of the Medical Society of the State of New York."

On the one hand you have just voted to

adopt the resolution which states the same thing negatively, and this is an affirmative action.

Those in favor of this resolution of the Reference Committee kindly say "aye"; those opposed, "no." It is carried.

Full Time Employment and Private Practice

Section 12
DR. WALLACE HAMILTON: Your Reference Committee begs to approve the resolution introduced by Dr. Edgar A. Vander Veer of the County of Albany, in reference to the practice of full time employed physicians by the State engaged in private practice for profit.

I move the adoption of this report.

Seconded and carried.

59. Invitation to Hold 1937 Annual Meeting

Sections 16-76

Dr. B. Wallace Hamilton, New York: The Committee approves the invitation extended to the Medical Society of the State of New York by the Erie County Medical Society to hold the state convention in Buffalo in 1937.

I move its approval.

Dr. ARTHUR J. BEDELL, Albany: I move as a substitute that it follow the usual course; namely, that it be referred to the Council for final action.

Seconded and carried.

60. Medical Legislation

Section 22

Dr. B. WALLACE HAMILTON, New York: Your Reference Committee recommends the disapproval of the resolution introduced by Dr. Louis Lewis of New York County, regarding a proposed legislative contact committee of seven to be appointed by the President. Your Committee feels that while Doctor Lewis' idea is commendable in principle, it would serve to be confusing to the existing Legislative Committee throughout the State.

I move its approval

After discussion by Dr. Louis Lewis and Dr. Harry Aranow, New York, chairman of the Legislative Committee, the report of the Reference Committee was adopted.

DR. B. WALLACE HAMILTON, New York: I move the acceptance of the report of the Ref-

erence Committee as a whole.

Seconded and carried.

61. Report of Reference Committee on Report of Secretary, Council, Censors and Councilors

Dr. James R. Reuling, Queens: The Reference Committee offers its report under the paragraphs as published. Under the sub-headings. "The Society," "The Society's Offices," "Financial Department" and "Legal Department," the Committee has no comment to offer.

Under the paragraph "District Branches," we are inclined to agree with the implication that the scientific programs of the branches are secondary to their social aspects and therefore

serve no great useful purpose.

Under the additional sub-headings of the Secretary's report, "Committees" and "General," there is no comment.

The Reference Committee feels that it cannot let this occasion pass, and that it is indeed honored in being privileged to renort on the last report to be made to this House by a man who has been so carnest, hard-working and conscientious and who has for many, many years dedicated his services with untiring zeal, faithfulness and devotion to the welfare of medicine and to this Society in particular, Dr. Daniel S. Dougherty, secretary, secretary extraordinary, secretary emeritus.

On the Report of the Council, the Reference Committee agree most heartily with the resolutions presented by the Special Committee appointed to "investigate the appointment of a layman as a director of the Departments of Health and Physical Education in the State Department of Education."

Under the Report of the Committee on Insurance, and, in view of the fact that several resolutions have been introduced in this House, your Reference Committee makes no comment on this portion of the Report of the Council.

That portion of the report dealing with the JOURNAL Management Committee's "recommendation regarding the papers read by invited guests" is approved by the Reference Committee, and your Committee moves "that papers read by invited guests become the property of

the Society."

Your Reference Committee feels that, under the published tables showing the comparative increase in number of pages of text and advertising, that it would be of value to the House of Delegates to have an additional table showing the comparative increase in revenue from advertising.

The recommendation that "all Committee news, all statements having a news value from officials, be published in the JOURNAL after editing to conform with the policies of the Society" is approved,—and your Reference Committee would place special emphasis on that part of the recommendation which deals with editing.

Regarding the "Directory," the Reference Committee feels that the opinion "that the book would be improved by printing full details under the name of each physician in New Jersey and Connecticut just as is done for New York Doctors" would be of value to the members of our Society, and recommend that this be done, provided that such additional information would not increase the cost to our Society.

On the report of the Councilors, the Reference Committee has no comment to make.

I move the adoption of the report.

Seconded and carried.

62. Report of Reference Committee on the Reports of the Treasurer and Trustees

DR. TERRY M. TOWNSEND, New York: Your Reference Committee on the reports of the Treasurer and Trustees have carefully examined the Treasurer's report and find:

1. The expenditures of all Committees, District Branches and all other expenses have been within or below the amounts allocated by the Budget Committee.

2. All emergent and unusual expenditures as

authorized by the Executive Committee are within reasonable limits.

Certain non-recurring expenses have been met which may be correctly credited to capital

4. The fixed overhead charges are not materially increased, despite a greater amount of

work and activity.

It is the sincere hope of your Committee that one or two more years will show our JOURNAL to be self-supporting and even a source of income.

The general condition of our treasury is healthy. The Treasurer verbally informs your Committee that the market value of our securities is gradually increasing and at this date have appreciated approximately six thousand

dollars since his last report.

Our Society is to be congratulated on the care and attention given to its financial affairs by their Board of Trustees. The Investment Committee of the Board in conjunction with the Treasurer deserves special thanks for the solidity of our investments and their foresight in reinvestments, which compare most favorably with similar organizations.

Your Committee is unanimous in favoring the resolution introduced authorizing the Trustees to invest not more than one-fourth of our funds

in non-legal securities.

I move the adoption of the report. Seconded and carried.

63. Report of Reference Committee Report of Committee on Legislation

Dr. John Masterson, Kings: The legislature is still in session, so that the Committee on Legislation is unable to submit its final report.

Ninety-seven bills affecting our profession have been introduced in the Senate and ninetynine in the Assembly. The work of the Legislative Committee becomes more onerous each year and the many bills introduced require the constant attendance in Albany of our Executive Officer while the legislature is in session.

Most of the bills detrimental to the public and our profession have been killed and a number of bills which we favor have passed both houses. The Committee state that they have had unusual cooperation from the various County Medical Societies. The Advisory Committee of Ten on Legislation has been of valuable assistance to the Committee,

The Chiropractic Bill, many times amended, is still before the legislature. The Hospital-Officers Lien Bill has passed the Senate. A bill requir-ing foreign physicians to take the State Board examinations before being admitted to practice has also been introduced.

We recommend:

1. That the Chairman of the Legislative Committee, with the approval of the Council, be given authority to appoint an Advisory Committee of Ten.

2. That the Bulletin of the Legislative Committee be again sent to the members of the Legislative Committee of all the County Societies.

3. That the County Chairman of each Legislative Committee establish a closer relationship with their Congressman than they have in the

past so that we may assist the American Medical Association in influencing Federal legisla-

tion if need occurs.

4. That the Committee request the House of Delegates to express to the Governor and the Legislature its appreciation of their sympathetic consideration of the activities of your Committee on matters of public health and welfare.

We cannot conclude this report without expressing our deep appreciation to Dr. Harry Aranow and the members of his Committee. The excellent work during the legislative session of our Executive officer, Dr. Joseph Lawrence, merits our approval.

I move the adoption of the report.

Seconded and carried.

Upon motion made and seconded the House of Delegates adjourned to 8 o'clock P. M.

EVENING SESSION April 27, 1936, 8 P.M.

THE SPEAKER: I have a telegram here that

I will ask the Secretary to read:

DR. PETER IRVING, Assistant Secretary, New York: This is addressed to "Dr. Sam Kopetzky, Speaker, House of Delegates, Medical Society of the State of New York: Waldorf-Astoria. Your delegate seating arrangement comfortably at tables finest I have ever seen, would appreciate pictures from front and rear of hall for use A.M.A. movie as an example perfect setup. Many thanks introduction and reception by House this morning. Regret necessity returning Chicago immediately. Austin A. Hayden."
THE SPEAKER: With the House's permis-

sion I will refer that to the Chairman of Com-

mittee on Arrangements for compliance.

64. Report of Reference Committee on the Report of the Committee on Workmen's Compensation

Dr. A. G. Swift, Onondaga: Your Reference Committee has reviewed the Report of the Committee on Workmen's Compensation and think we realize the large amount of time they have given to their duties and take pleasure in commending the zeal and thoroughness with

which they have done their work.

We approve of their report as a whole, with the exception which follows, and merely wish to emphasize some of their recommendations which impress us as of much importance.

With reference to covering the expense of carrying out the provisions of the law, we do not approve of a state-wide annual fee to be collected from all physicians registered to practice under the law, fees so collected to be pooled and redistributed to the county societies on a per capita basis.

We recommend that the several county societies be separately responsible for the expense of carrying out the provisions of the law in

the counties.

1. The fee schedule for the Metropolitan We recommend that the schedule be adopted by the other counties of the State for at least one year, in order to give it a satisfactory trial.

2. Since the present law makes it necessary

for a physician to bring a civil action to recover for services to the employee of a non-insured employer, we also strongly recommend sub-mission to the legislature of New York State of an amendment to the existing law which will empower the Industrial Board to assess the costs of medical care and compensation against a non-insured employer.

3. The last recommendation is based on consideration of the necessity of having a permanent committee to deal with Workmen's Compensation and firmly agree with the recommendations of the Compensation Committee that such a Standing Committee on Workmen's Compensation be appointed and that the State Society provide for the services of one mem-ber of this Committee to act as executive

director on a full or part time basis.

The Speaker: You have heard the recommendation of the Reference Committee.

I recommend the adoption.

Seconded and carried.

Dr. Albert G. Swift, Onondaga: We merely wish to emphasize the following three parts of their report: first, the fee schedule as adopted for the metropolitan district. We recommend that the schedule be adopted by the other counties of the state for at least one year in order to give it a satisfactory trial.

THE SPEAKER: Recommendation is made that the fee schedule which was submitted for the Metropolitan district be tried in the other County Societies for one year, to be given a fair trial. You have heard the recommendation.

Seconded and carried.

Dr. Albert G. Swift, Onondaga: Secondly, since the present law makes it necessary for a physician to bring a civil action to recover for services to the employee of a non-insured employer, we strongly recommend submission to the legislature of New York State of an amendment to the existing law which will empower the Industrial Board to assess the costs of medical care and compensation against a non-insured employer,

THE SPEAKER: The recommendation of the Reference Committee that such a law be introduced is before the House. What is your

pleasure-

Moved and seconded that the recommendation

be adopted.

Dr. Arthur J. Bedell, Albany: ask what the resolution means? information.

THE SPEAKER: What do you mean?

Dr. Arthur J. Bedell, Albany: Just exactly what the resolution means. What does the resolution mean?

THE SPEAKER: Will you be kind enough to

read your recommendation again.

Dr. Albert G. Swift, Onondaga: We strongly recommend submission to the legislature of New York State of an amendment to the existing law which will empower the Industrial Board to assess the costs of medical care and compensation against a non-insured employer.

THE SPEAKER: Is there any discussion?

Dr. Arthur J. Bedell, Albany: Discussing the point, Mr. Speaker, if I am credibly informed, many amendments are contemplated in this act. I see Dr. Kaliski at the end of the table. I was looking around for him. May I through you ask Dr. Kaliski to inform us if that is not the case?

THE SPEAKER: I think we will grant that there will be many amendments to the Work-

men's Compensation Act.

Dr. ARTHUR J. BEDELL, Albany: May I ask through you that Dr. Kaliski answer the question?

THE SPEAKER: Will there be amendments introduced in the Legislature to the Workmen's

Compensation Act

DR. DAVID J. KALISKI, New York: It is not contemplated that very many amendments will be introduced on the Workmen's Com-pensation Act at this time. It is contemplated that this amendment will be passed by this Legislature because it is necessary. Under the old law the Industrial Board had the power to assess the costs against a non-insured employer, which meant that a doctor's bill would be paid and the employee of a non-insured employer would get compensation for disa-bility. Unfortunately, under the new law this protection pertains only to out-of-state workers. It is necessary that the Industrial Board have this power in order to protect the physician treating the employees of non-insured employers. At the present time the Department of Labor only has the power to pro-ceed under the Penal Code against such noninsured employers, but owing to some defect in the law has not got the right which the Reference Committee believes it should have. I believe the bill has already been introduced and I believe we should support it.

THE SPEAKER: Is there any further discussion of the Reference Committee's recommendation that such an amendment be introduced?

A Voici: Point of information. There are thousands upon thousands of employers who employ one single individual and, therefore, he does not come under the compensation law. Does this amendment apply to an individual who is not insured because he does not have to be insured under the Compensation Law?

THE SPEAKER: Can you answer the ques-

tion, Dr. Kaliski?

Dr. David J. Kaliski, New York: does not contemplate weakening the provisions of the Workmen's Compensation Law. It only pertains to those individuals who should be insured under the present law.

THE SPEAKER: Are you ready for the question? Those in favor of the recommendation of the Reference Committee will kindly say "aye"; those opposed, "no."

y "aye"; those opposed, "no." Carried.

Dr. Albert G. Swift, Onondaga: and last recommendation is based on consideration of the necessity of having a permanent committee to deal with Workmen's Compensation and firmly agree with the recommendations of the Compensation Committee that such a Standing Committee on Workmen's Com-pensation be appointed and that the State Society provide for the services of one mem-ber of this Committee to act as executive director on a full- or part-time basis.

THE SPEAKER: You have heard the recommendation of the Reference Committee. What is your pleasure?

It was moved, seconded and carried that the

recommendation be adopted.

Dr. ARTHUR J. BEDELL, Albany: Again, sir, a question of information: just what is contemplated by the Committee or the Reference Committee that this one man be a "head man," a "first man," or what? Under what committee would be function and what would be some of his duties?

Dr. Albert G. Swift, Onondaga: Well, our recommendation is simply that in consideration of this committee which has arduously worked for several months, some sort of mechanism be established by which the doctors of the State could properly be guarded in compensation cases. We believe that no man in the State Society should be expected by the Society to give as much time to this matter without compensation as these men who have participated in these activities have given. Therefore, we recommend that the Society consider the advisability of compensating some executive director of a committee which shall be a Standing Committee appointed by the Society to take care of this particular matter.

Dr. Arthur J. Bedell, Albany: Mr. Speaker, through you another question: Is this a wish of the chairman of the Compensation Com-

THE SPEAKER: I do not know.

DR. ALBERT G. SWIFT, Onondaga: That is his recommendation

Dr. Arthur J. Bedell, Albany: I am asking specifically and particularly if it is the Chairman's wish. There is a big difference in my mind between a committee report and a personal

thing. DR. DAVID J. KALISKI, New York: Well, Mr. Speaker, if I am called upon to answer that question, I want to say it is a very embarrassing question for me to answer. I realize that there should be a more or less continuing committee in charge of this work. I further realize that whoever has charge of the work cannot in the future devote as much time to this work as is necessary to carry it out properly and efficiently without practically sac-rificing all other work. I feel that in my recommendations in my report the members of my Committee, Dr. Elliott and Dr. Hamilton and myself, felt that from the experience of the past year and forecasting what would happen in ensuing years, it would probably be neces-sary to have a committee familiar with the Workmen's Compensation, and of that committee all the members, or at least one of the members should be paid an adequate amount

for services rendered to the State Society. THE SPEAKER: How does that come in in the scheme of things as outlined in the new

set-up? How does it fit in?

Dr. Albert G. Swift, Onondaga: That I cannot tell you.

DR. DAVID J. KALISKI, New York: Are you asking me that question?
THE SPEAKER: I am.

Dr. Kaliski: I have not been consulted as to the new set-up. I have only heard it men-tioned here in Dr. Heyd's report. I should HOUSE OF DELEGATES

think that it would very well fit in in the contemplated report. I think, however, that there is a wide expanse of time. Perhaps a year will ensue before the report of Dr. Heyd's recommendations can be made.

THE SPEAKER: Right,
Dr. KALISKI: The Committee has already worked for nearly one year and another year will ensue before there will be a report or action on Dr. Heyd's report.

THE SPEAKER: It will take a year before

there is final action on the other set-up. Is there any further discussion?

DR. DANIIL S. DOUGHERTY, Secretary: call attention to the fact that this report said a Standing Committee. We can't establish a Standing Committee without an amendment to the By-Laws.

Dr. Walter D. Ludlum, Kings: I make the substitute motion that the matter be referred to the Council with the recommendation that the substance of the recommendation be carried out so far as possible under existing

conditions.

THE SPEAKER: The motion is made that the Report of the Reference Committee be referred to the Council to be carried out as far as it is possible to do so with the existing machinery. Any discussion? Those in favor kindly say "aye"; those opposed, "no". Carried. It is so referred.

Dr. Albert G. Swift, Onondaga: I recommend the adoption of the report as a whole.

THE SPEAKER: Motion is made for the adoption of the Report as amended as a whole.

Seconded and carried.

65. Physical Education Director

Section 45

"WHEREAS, the appointment of a Physical Education Director to the directorship of the Division of Health and Physical Education of the State Department of Education has resulted in the supervision of medical functions by a non-medical administrator, and "WHEREAS, the health of the school child

necessarily involves medical considerations even more fundamentally than considerations of phy-

sical education, therefore, be it

"Resolved, by the Medical Society of the County of Westchester that the appointment of a layman as Director of the Division of Health and Physical Education of the State Education Department is hereby condemned and protested as unwise from the standpoint

of public welfare and be it further "Resolved, that the Medical Society of the County of Westchester hereby memorialize the Medical Society of the State of New York to the effect of the foregoing resolution and recommends that the Medical Society of the State of New York take such steps and sponsor such legislation as may be deemed necessary to require the appointment henceforth of a duly qualified physician to the aforementioned directorship.

This matter has already received attention by the Executive Committee of the State Society. In the final analysis it becomes apparent that the trouble lies fundamentally in that part of the educational law which deals with the constituted personnel of this division. There can be no question as to the advisability of having a function of this importance directed by a physician, and the most effective solution would be a change in the educational law. Your Committee approves heartily of this resolution and recommends its adoption.

I move the adoption.

Dr. Arthur J. Blotll, Albany: With your permission, I call the attention of the members of the House to their Journal. If they read their Journal carefully they will find that a special committee was appointed by the Executive Committee, consisting of Dr. Thomas H. Cunningham and myself, and we went into some of that detail. You will find a short summary of our conclusions. I most heartily endorse the project. We are saddled with the present Director, but I think if you take one further look into the depth of it you will find that it comes to the question of Civil Service, and it is along that line that the Executive Committee was acting this year. It leads you into an adjoining county where they had a similar situation, and the situation is this: that the Board of Regents-and I believe I am correct, Dr. Madill-designates an examiner, a single examiner; that that examiner carries forth the recommendation-a single examiner. It is rather important that you get the background to avoid misunderstanding. The examiner appointed to examine the applicants for this position regarding which the resolution speaks was a former teacher of that applicant, and that applicant when he got his Ph.D. degree got it upon recommendation of the work that he did by said teacher. Draw your own conclusion. Four men were rated. The man who was serving temporarily in the same position was rated fourth, and if I am correctly informed, the Commissioner is required by law to take from the first three. Therefore, the man who had been temporarily in charge of the work, a physician, was not eligible for appointment. Certainly it looked like a personal proposition.

Now, in the adjoining county a similar situation arose, and if I am correctly informed, they have decided to follow Civil Service, follow the suggestion of the State Society that more than one examiner take hold. I think the man holding that position was way down the line.

What was he, Dr. Madill, 34? Dr. Grant C. Madill, Ogdensburg: Four-

Dr. Arthur J. Bedell, Albany: Fourteenth. And this was the man holding the position. Now, with the cooperation of Civil Service we will not have Boards consisting of one, but Boards consisting of three.

I certainly hope that you will adopt this resolution and that the State Society will do

all in its power to establish a proper system.

DR. GRANT C. MADILL, Ogdensburg: I just wish to say that we had selected a medical man. We tentatively had appointed a man to take the place of the officer who had occupied that position before and it seemed to us that there would be no question about the selection of this eminent man. We took considerable pains. As a matter of fact I was very much interested in it and we succeeded in persuading the pres-

ident of one of the large universities of the State to give us this young man. We expected that he would receive the appointment. He was eminent in the study of public health. I do not think there was anything wrong about the selec-tion of the Civil Service Examiner. As a matter of fact, I do not think any one man in the Education Department had anything to do with the selection at the time. That is a Civil Service function. But much to our despair, to the des-pair of those who were interested in seeing a medical man made the head of this division, he ran fourth and we had to take the man who was first. Now, that is the situation. As far as the school physician's work is concerned, I really do not see that it is going to make very much difference. We still have connected with the division a medical man. Now, we had very strong opposition to the appointment of a medical man because we had the physical educator, who has a strong organization, and that is an important part of the function of the school, and it was a question of which would succeed; and while I personally would like to see a medical man at the head of this division, I do not think that the medical service to the school is going to suffer.

After further discussion by Dr. Augustus J. Hambrook of Trov. and Dr. James F. Rooney of Albany, upon motion made and seconded, the report of the Reference Committee was

adopted.

66. Mutual Aid Associations-Schedule of

DR. EDWARD C. PODVIN, Bronx: resolution is in reference to contracts tween the Mutual Aid Associations of the Consolidated Edison Company, Hospitals and Physicians, referring particularly to certain schedules of fees which are claimed to be unfairly competitive, inimical to the reasonable economic security of the medical profession and of the community at large. It asks that any institution which encourages or permits com-petitive commercialization of medical care be regarded as operating contrary to the welfare of the public and the medical profession, and as tending to lower professional standards in the community, and further that it be con-sidered unprofessional and unethical for members of the medical staffs of hospitals to accept remuneration for services on a schedule not approved by the Medical Society.

Your Committee feels that it would not be wise for the Medical Society of the State of New York to adopt this resolution in its present form since the grievance expressed therein is solely on the basis of competition for fees. Such a matter is within the province of each County Medical Society to act upon. Your Committee, however, feels that the question brought up is part of a larger question upon which it may be advisable for the Medical Society of the State of New York to definitely take a stand. The past year has seen the passage of laws in relation to workmen's compensation that embody certain principles of free choice of physician and fair remuneration for which organized medicine has been fighting for

The situation in Kings County as vears. brought out by the resolution referred to could well come under similar principles. We therefore offer the following recommendation: "Resolved, that the Medical Society of the

State of New York recommends that the principles of free choice of physician and fair re-muneration as expressed in the present Workmen's Compensation Law should govern all contracts with mutual aid and similar organizations."

I move its adoption.

Motion seconded.

Dr. WILLIAM KLEIN, Bronx: Mr. Chairman and gentlemen: I think we have been dillydallying with this question entirely too long. It has been creeping upon us and every year we have some kind of lukewarm resolution and let it go at that. It cannot be left to the county. I am sorry to disagree with the Ref-erence Committee. One county is so near to the other that one physician in one county cannot pay attention to what is done by physicians in the next county. We have members of one county who want to do it and members in the nearby county come right in and take those jobs. We have the Edison Company, and the Foundry Company, and so forth. Those people should pay their doctor. Instead of that they make a contract with one or two men who usurp all the work at a definite stipend, and this business of having a free choice of physicians for the employee is a subterfuge. They either take the physician appointed or they either take the physician appointed or they lose their job. It is very plainly told by all the foremen and I have had occasion to investigate this matter very many times. The foremen tells the employee "Now, you go to Dr. So and So." The employee says, "Well, I would like to go to my own doctor." The foreman says: "Well, go ahead; but I tell you to go to this physician. You go do as you please about it." It is immediately understood that he will lose his position if he goes to this private physician. I am sorry to say that many private physician. I am sorry to say that many of the physicians who take these jobs have some sort of subterranean connection with somebody who is in authority, who see that these patients go to that particular doctor. It has cut in on the practice of the general prac-titioner tremenduously, and of the specialist, too, if you please. Unless the Medical Society takes a stand against the practice, this stand that the resolution has recommended of free choice of physicians, the poor workman has no choice. He either takes the doctor he is told to take or loses his job. Unless the State Society can tell this doctor not to take any con-tract practice, we might just as well stop talking about it.

DR. THOMAS A. McGoldrick, Kings: Mr. Speaker, these questions arise from practical experience in some of this work:

First, while the resolution for the purpose of being specific mentioned the Consolidated Edison Companies of Greater New York with their forty-five to fifty thousand employees, there are some ten or twelve other corporations waiting to see what action will be taken by the County and State Societies before they put some plans of private contract medicine into effect. Whatever their privileges may be they will surely exercise them. The Workmen's Compensation met with that same situation so that the bill which was introduced and passed became known in the legislative circles and to the employers and insurance companies as "The Medical Abuses Act." So many abuses developed under that act that it was necessary to enact the present law, and the State Authorities, Legislature and Governor, recognized that necessity after their several investigating commissions agreed upon and passed the present act.

Now, to be specific, under that Act the insurance carriers and a great many employers recognized this one point that I am going to mention-this competitive bidding or underbidding, and they agreed to a schedule of fees voluntarily with the Medical Society. And what happened? After a great deal of discussion and many conferences a fee was set in accordance with the law which required that the fees be those paid in that community by people with that standard of living, for those services; and when that was agreed on one of those items, for illustration, was a hernia operation, and it was agreed that \$75 was a fair price, including aftercare and operation, for such work. Within a few days a number of doctors sent in word to the insurance companies that they would do it for fifty; a few days later several more sent in word they would do it for twenty-five, and before the two weeks were up a number had sent in word that they would do it for nothing provided they were given some other business by the insurance carrier.

Now, under this very system which has been introduced the hospitals tried to arrange some schedule with this corporation. At first the schedule of fees was that the doctor be paid nothing; that the hospital would be paid a certain rate per day, four dollars, and that would include everything for the patient or employee receiving \$55 a week and no dependents, and that the average payment to the employee would be \$32.50 a week. was no restriction on the employees entering these mutual associations. A vice-president of the company receiving a salary of thousands of dollars a year was eligible for membership and eligible for these medical benefits which would follow. Now, an agreement was being made by the hospital for some remuneration for the services rendered. Let me say these are not indigent people. This is an insurance plan. A hundred people paying for the seven or eight who go sick for the year, backed with a gratuity of say eight thousand dollars, the equivalent of three hundred people paying for the seven or eight or nine who go sick in the year. And while this was being discussed, the hospital staff in one instance agreed that they would take no fees until the matter was settled; and immediately one of the members, a surgeon went around by circuitous routes and saw the people and sent in his bills for the services that he rendered patients that came under his care and was receiving the checks while the rest of the staff was honestly making an effort to remedy a situation which had in years gone by proved disastrous for the people that were sick, much more so than for the doctors.

Again, another department of a hospital that had made arrangements for tonsil operations had a fee agreeable to both the corporation representative, the mutual benefit organizations and the hospitals, agreed upon a fee, and that the three assistants in the department would rotate on the cases and receive the fee, and one of them slipped around and made a private deal for three and a half less per cent and agreed to send them to another place, a private place, and the operation would be done.

Now, that is the burden of the resolution. What can you do about it? The committee says, and very wisely and splendidly, what they feel can be done—to use the same standards as the Workmen's Compensation Act. Under that act a man doing these things may have his registration revoked. There is nothing that the Society can do directly. This resolution resolves that it shall be regarded as unprofessional and unethical conduct, and in that way make him subject to action by the censors of his Society, and the resolution is for the Medical Society of the State to approve of that stand—that men who by competitive bidding or underbidding exploit the practice of medicine and the people who are sick, are doing things that are inimical to the interests of the profession and damaging to the individual who is sick. For that reason the resolution has been proposed.

Dr. Otto H. Leber, New York: I should be the last one indeed to wish to exploit the medical profession or have anything to do in the way of competition in any community under such a plan as this; but I think there are two items in this plan that we should be cognizant of. First of all, that these individuals who are contemplated to receive medical services under this plan were not patients in your office or mine. By agreement ninety per cent of them were to be in the sub-normal income group who are now getting service in the dispensaries of the city, for which neither you nor I receive one cent; nor do the hospitals receive adequate compensation if anything; secondly, that this specific company of which we are speaking now came voluntarily to the County Society, was willing amicably to come to some conclusion fair to the physician, fair to the hospital, and fair to the employee. These employees were receiving unsatisfactory medical service in the dispensaries, according to the employee and according to the company. The physicians were serving these people for nothing. The company—perfectly selfishly, I agree—in order to better the condition of their employees, to reduce the amount of time lost, was willing to contribute a certain proportion of the income of these individuals in order to receive better service and have them lose less time in their To do this they were willing employment. to come to the County Society, to agree with them on a compromise, and have a fair fee for the physicians and for the hospitals for the service involved. For such service the physicians could not be expected to receive

the ordinary fees, they could not be expected to receive the ordinary office or house visit fee such as is custominy in the community, but they should and it would naturally be expected that they would be willing to make a com promise, to receive something for which they now receive nothing whatsoever. It was esti mated that for this one particular plant \$150 000 to \$200 000 would come into the hands of the physicians of New York City which they were These people are in the not now receiving sub normal income group about ninety five per cent of them and I believe the company was willing to make a maximum income of \$45 which would only include about two or three per cent of the entire number

THE STEAKER The Speaker very much regrets to interrupt I apologize to you for the interruption but I want to say that this discussion is wandering off the topic that the discussion before this House is on the substi The discussion has nothing tute resolution to do with any specific proposition anywhere, has nothing to do with sub normal or abnormal or super normal groups. The question before the House is shall or shall not the substitute

resolution prevail

DR OTTO H LEBIR New York make my speech clear by seconding the motion

of the Committee?

DR. DAVID J KALISKI, New York Speaker, I did not wish to enter into this dis cussion but since Dr Leber has spoken and since I was the chairman of the Committee that met with the representatives of the par ticular company and it has a bearing on the resolution I must say that the facts concerning the willingness of the company to pay a fair fee are not as represented by the previous speaker, not that the previous speaker's facts are not correct but the facts as elicited by our Committee were of a different nature. I want to say that we are confronted with a very serious situation We have on the one hand an organization employing a certain number of thousands of individuals asking for prefer ential rates for the treatment of patients when they are sick and the same company paying for the same individuals when they are injured a fee that represents a living wage to the We would be stultifying ourselves by permitting any scheme such as the scheme that is the basis of this resolution getting any sup port from any county society or from the State Society, unless such scheme were based upon the principles of the American Medical Asso ciation or of the Booth report of the Medical Society of the State of New York

THE SPEAKER Gentlemen the Reference Committee reported that the question at issue of discipline is a matter for the County So ciety, and it presented a substitute resolution which read that the Medical Society of the State of New York recommends that the prin ciples of free choice of physician and fair remuneration as expressed in the present Work men's Compensation Law should govern all contracts with mutual aid and similar organi That and that only is before the zations House

regard to this resolution. I would say that portion of the resolution should certainly adopted but it is my opinion that the retion should be referred back to the commi for further consideration of the other princ mvolved

THE SPEAKER You have within you means to accomplish your will, if you can it through the House of Delegates

DR ELLIOTT I move that we refer back to the Committee for further considera Motion seconded and carried

67 Definition of Good Standing

Section 11 DR EDWARD C PODVIN Bronx Now the definition of good standing this motion presented by Dr Heyd It presents a spe definition of good standing based upon pay of dues together with a statement as to relation of malpractice defense and insurant good standing

These matters are at present either on entirely or stated indefinitely in the By The present motion is in no sense in coi with the By laws but merely acts as a cla We therefore, approve ing regulation motion and further recommend that the m be taken under consideration by the Comm that undertakes revision of the By laws incorporation in a more definite form in new By laws

I move the adoption of this report Motion seconded and carried

68 Advertising for Gain by Duly Lice. Physician

Section 32 Dr Edward C Podvin, Bronx This is Reference Committee's report on the matter amending the Medical Practice Act to pro

advertising by physicians
The State Medical Society during the legislative session has sponsored legislation ering essentially that which is asked for in resolution It is, therefore deemed unneces for the House of Delegates to pass this retion and we recommend that it be not ado I move the adoption of this report

Seconded and carried

69 Age Limitation in Gainful Occupat

Section 36 DR. EDWARD C PODVIN, Bronx Your (mittee feels that it would be presumptive the Medical Society of the State of New to intrude itself at this time in this sociolo problem and we recommend that this resolu be not adopted

I move the adoption of the Reference (

mittee's report Seconded and carried

70 City Charters-Tenure and Compe tion of Medical Staff of Public Institut

Section 30 DR EDWARD C PODVIN, Bronx This retion requests that this House of Delegates abnrove of certain clauses --

State of New York and approve of the principle of providing proper compensation for medical services rendered in public institutions by medical staffs, and protection of tenure of office

in positions on such medical staffs.

While the request is in principle a reasonable one, it is presented to the House of Delegates by an individual physician. We feel that matters of this kind should be dealt with first in the local medical societies, and that any request for the approval of a principle should come to the State Society only as an official request from a county medical society. For this reason we recommend this resolution be not adopted.

Motion seconded.

Dr. CHARLES H. GOODRICH, Brooklyn: I move you that this matter be referred to the Committee on Economics for early report to the Executive Committee

Motion seconded and carried.

71. Consolidation of Executive Offices

Section 9

Dr. Edward C. Podvin, Bronx: This report proposes some radical changes in the administrative set-up of the Society which will require a considerable change in the Constitution and By-Laws. The changes proposed are so great that it would not be feasible in the time available for your Reference Committee to make a sufficiently thorough study to be able to present definite recommendations in detail. We do, however, thoroughly agree with the conclusion of the Committee as embodied in the report, and realizing that amendments to the Constitution must be presented at one annual meeting to be acted upon at a succeeding meeting, we recommend as follows:

- 1. The report be turned over to Committee on Revision of the Constitution and By-Laws;
- 2. That adoption of report of Reference Committee be considered a notice of proposed amendments to the Constitution and By-Laws of the Medical Society of the State of New York comprising in a general form the points enumerated in their report;
- 3. That the Committee on Revision of the Constitution and By-Laws be instructed to inform the members of the State Society, through the Journal, of the amendments proposed with the reasons therefor, in time for such matter to be considered by the component County Medical Societies; that the Committee invite suggestions and comments, and, if necessary, be empowered to hold hearings in the various districts of the State upon the proposed amendments, so that when published as required, at least one month before the next annual meeting, all who so desire will have had a chance to have become familiar with the subject.

I move the adoption of the Reference Committee's report.

Seconded and carried.

THE SPEAKER: The Committee on Constitution and By-Laws are instructed by this House of Delegates—this being construed as a notice of amendment-to prepare and present prior to the meeting in time for your reading and your preparation for discussion, these amendments.

72. Practice of Medicine by Cults

Section 34

Dr. B. WALLACE HAMILTON, New York: Your Committee considered a resolution introduced by the Medical Society of the County of Broome, with reference to persons licensed to diagnose and treat sick individuals with inadequate training, namely, chiropractors.

While the Committee is in accord with the principle presented in the resolution that no one should be allowed to practice the healing art with less than the minimum requirements, as stated in the Medical Practice Act of 1926, we are not in accord with any proposed changes in the Medical Practice Act at the present

We feel that the fault in the experiences in the County of Broome lies with the jury system and the civil authorities.

I move the adoption of the Report of the Reference Committee.

THE SPEAKER: The recommendation, I take it, is that the resolution be not approved. Are you ready for the question? Those in favor say "aye"; those opposed, "no." The recommendation of the Reference Committee is adopted. The resolution is defeated.

73. Medical Care (Socialization of Medicine)

Section 31

Dr. B. WALLACE HAMILTON, New York: Your Reference Committee considered a resolution introduced by Dr. Joseph Slavit of the Medical Society of the County of Kings regarding a proposed plan for the socialization of the practice of medicine. As in previous years, your Committee disapproves of the proposed plan as presented.

I move the adoption of this report.

Motion seconded.

Dr. Joseph Slavit, Kings: Mr. Speaker and members of this House of Delegates: while we did not expect that you would adopt the plan that was presented in this resolution, we did expect that you would give any plan that is presented to the Society, that aims to reorient ourselves on the question of medical care and the economic condition of the Medical Profession, a decent and proper attention. If these matters do not concern us, then these resolutions should not appear at all within this body; but inasmuch as these resolutions are allowed and accepted and considered by committees, I think that it is at least due to yourselves, your own interests, not to mention the public interest, that these matters be carefully thought over, or, at least, that a hearing be given. Something happened only ten or fifteen minutes ago which clearly illustrates the maze that we as a profession are in. We were discussing the Consolidated Gas Company and the Edison Company, and corporate practice, and we saw the chairman of the Committee that reported on that—he showed you himself conclusively that we are in a maze with regard to that matter. He showed you that we are dealing with corporations-

THE SPEAKER: I wish you would stick to your subject; because it is a big one, and you will need all the time I am going to give you.

Dr. Joseph Slavit, Kings: I am just going

to speak five or seven minutes and no more. He showed you himself what the situation leads to -competition amongst ourselves, ruinous competition, competition which spells the breakdown of the medical practice and, besides that, medical practice which yields to corporation practice, and in the last analysis a complete destruction of the very basis of our practice as we supposed we were practicing in the past Just a year or two ago, why there was no problem at all before us Now we are beginning to con sider corporate practice, we are beginning to consider even voluntary insurance. It is quite evident that we cannot solve this problem by the methods by which we have been seeking to solve it It is quite evident that this whole question of fees and regulation of fees, and under mining of fees, and underbidding and all that is mante in the very method by which we are pursuing medical practice today I believe that this question is of such vital importance, that it is going to become so much more important whether we resolve against it or not, that the question of reorganizing medicine on socialized lines is becoming so important—infact it is already creeping in upon us under our very noses-that we ought to at least do something about it in the way of an earnest and honest study of the problem without prejudice or bias even if it were only for our own selfish interests, not to mention the general public interest, we should do that I believe that instead of ruling against a resolution like this, the least that the Committee could have done would be to have referred it for a complete study and report at the next House of Delegates meeting and to have advocates of the socialization of medicine upon such a committee so that matters could be threshed out pro and con, in a fair and proper way Simply to disapprove the resolution because we took certain action a year ago is not sound, is not scientific for scientific men We should realize that we are likely to change our viewpoints from year to year We change our viewpoints from year to year have done it already in the past year. We are going to do it still more as time goes on, because conditions are shaping themselves so as to demand a change in our present methods of providing medical care for the people, and a change in our present methods of practice, and I really feel there are plenty of men in the profession who so believe

I believe the time has come when we should take that question in hand and thoroughly study it, for, as I said before, whether you like it or not, this thing is creeping in on us, anyway Only a few weeks ago the Commissioner of Health reported that fifty per cent of the people in New York City are now receiving their medical care from public institutions. The emergency relief is giving another third of medical care at public expense. The neighborhood health centers developing will give still more and now you are putting the rest of the medical practice on a corporation base Where will private practice be left? Private practice is disappearing whether we realize it or not, and it is time that we sat up and took notice and began to plan in accordance with the changes and the trends of the times, and the Committee on Trends should seriously undertake a proper study of this subject and report to us in the near future

A motion made by Dr James F Rooney of Albany, to limit the debate to five minutes was

seconded and carried, and after free discussion by Dr Rooney, Albany, Dr Samuel S Fischoff of Brooklyn, Dr Arthur J Bedell, Albany, the motion to adopt the recommendation of the Reference Committee was carried, and the Speaker declared the resolutions lost

74 Fees for Medical Services for Welfare Patients

Section 44

B WALLACE HAMILTON, New York Your Committee considered a resolution intro-duced by Dr A I' Heyl of the Medical Society of the County of Westchester regarding fees for medical services rendered to welfare patients Your Committee recommends that this matter be referred to the Council for appropriate action in cooperation with the Medical Society of the County of Westchester

I move the adoption of this report

Seconded and carried

75 World Peace

Section 38

WALLACE HAMILTON, New York Your Committee considered the resolution presented by Dr Samuel S Fischoff of the Medical Society of the County of Kings regarding the preservation of peace

Your Committee feels that the preservation of peace has the sincere endorsement of all men of good will and therefore this resolution needs

no specific action on our part
_ I move the adoption of the report of the

Reference Committee Seconded and carried

76 Invitation to Hold 1937 Annual Meeting

Sections 16-59 DR B WALLACE HAMILTON, New York Your Committee was given for consideration two letters asking our approval that the next meeting of the Medical Society of the State of New York be held in Rochester

Your Committee is in hearty accord with the selection of this city for our next meeting and

take pleasure in recommendation to the Council mendation to the Council This is a motion that was before the House for the usual course, depending upon a number of factors which have not yet been determined by this House Those in favor kindly say "aye", those opposed, 'no " Carried

77. Group Insurance-Booth Plan

Section 8

DR THOMAS A MCGOLDRICK, Kings Resolution introduced by Dr Gordon Heyd, with reference to the Booth Report of May 1, 1933, on Group Insurance

The Reference Committee B recommends that in the second paragraph of the preamble, the words further elucidation' be changed to "reaffirmation,' and further, that the resolution as introduced be referred to the Council with a recommendation that a sub-committee be ap pointed for further study and report on the entire matter of medical insurance plans

I move the adoption of that recommendation

Seconded and carried

78. Finances of the Society

Sections 10-47

DR. THOMAS A. McGoldrick, Kings: Resolution submitted to the House of Delegates on the subject of the finances of the Society and recommitted to the Reference Committee. Your Committee has recommended that a portion of the funds not exceeding forty per cent be permitted for investment by the trustees. It now recommends that the trustees be permitted to invest a portion of the funds of the Society, this portion not to exceed twenty-five per cent in equities.

I move the adoption of the Report.

Seconded and carried.

79. Eight Hour Day Law for Hospital Workers

Section 33

DR. THOMAS A. McGoldrick, Kings: Resolution introduced by Dr. Benjamin Davidson of Kings County, referring to the eight-hour day law. Your Reference Committee B. finds the time not appropriate for the pushing of such legislation.

I move the adoption of this report.

Seconded and carried.

80. Hospital Management and Medical Staff

Sections 24-52
DR. McGoldrick, Kings: The Resolution proposed by the Medical Society of the County of Kings on the relations of hospitals and the members of its staff was recommitted to this Committee. The Reference Committee has made but little change and is ready to submit to the action of the House of Delegates at Large. You will recall that the question of disagreement was under these sections.

"Whereas changes in staff organization and personnel have been made which were not in the public interest, and often have been in fact acts of injustice to physicians who by honorable and faithful service, had acquired a moral right to the continuance of such privileges and benefits as flow out of the hospital connection, and

"WHEREAS, a correction of such wrongs is possible only through the action of an authoritative body, qualified and constituted to speak the opinion and will of the medical profession."

The Reference Committee concerning that resolution approves the adoption of the first five clauses of the preamble and recommends the elimination of those two I have just read, and in place thereof the following resolution:

"Be It Resolved, That the Medical Society of the State of New York record its disapproval of the above practices and recommends that the final authority in hospital management introduce changes in medical personnel or general professional policies only after formal consultation with a representative from the Medical Board or other constituted professional authority of the hospital."

The changes have been just in wording. I

move the adoption of that.

Mr. Speaker: You have heard the motion, moving adoption of the Reference Committee's

DR. CHARLES H. GOODRICH, Kings: I move to amend this by elimination of the word "consultation."

THE SPEAKER: What are you substituting therefor?

Dr. Goodrich: Nothing.

THE SPEAKER: An amendment has been proposed. The resolution reads as follows:

"That the Medical Society of the State of New York record its disapproval of the above practices and recommends that the final authority in hospital management introduce changes in medical personnel and general professional policies only after formal consultation with—"
That has been amended to leave out the word "consultation" so that it should read:

"-records its disapproval of the above practices and recommends that the final authority in hospital management introduce changes in medical personnel or general professional policies only after formal with", etc.

Is that the way you want your amendment? Dr. Goodrich: "Only after formal recom-

mendation.'

THE SPEAKER: You are substituting the word "recommendation" for "consultation"?

Dr. Goodrich: No; there is another word.

The Speaker: The Speaker is trying to be helpful but we do not know how to help you.

DR. GOODRICH: Only with recommendation from the Medical Board; in other words, the sense of it should be this—the recommendation should come from the Board as a whole, not after consultation with three or four selected members of the staff.

THE SPEAKER: It does not say anything

about selected members of the staff.

Dr. Goodrich: No; but that is the way it is understood.

Dr. McGoldrick: Say after formal consultation with and recommendation from the Medical Board.

Dr. Goodrich: I should like to see the word "consultation" eliminated; in other words, the recommendation should originate with the Medical Board.

THE SPEAKER: With the permission of the House, since this seems to be a matter of verbiage, I suggest that the Reference Committee Chairman go in consultation with those who would amend the resolution and bring it to me in form so that we can intelligently act on it.

Dr. McGoldrick: The Reference Committee again took up that section referred to them for

a rewording and they now report:

It approves the adoption of the first five clauses of the preamble, recommends the elimination of the sixth and seventh which were read, and recommends the following resolution.

"Therefore, Be It Resolved, That the Medical Society of the State of New York record its disapproval of the above practices and recommends that the final authority in hospital management introduce changes in medical personnel or general professional policies only after formal recommendation of the Medical Board enacted in regular or special session, and where no Medical Board exists such other constituted professional authority acting in its

I move the adoption of that. The motion was seconded and carried.

Dr. HILLMAN: I move the reconsideration of the vote on Dr. Rooney's amendment to Dr. Kaliski's resolution in regard to foreign physicians being allowed to practice here without examination. If the law that we approve of is not passed, why, we will be taking no action in the matter at all and some of us who voted in favor of Dr. Rooney's substitute resolution feel that is not sufficient and we would like to have that vote reconsidered.

DR. DAVID KALISKI, New York: Would it be in order to refer the matter back to the Reference Committee for further consideration

and report to the House?
THE SPEAKER: It would be in order if the

House so vote.

DR DAVID I. KALISKI, New York: May I so

Dr. David J. Kaliski, New York: May I so move, Mr. Speaker?

Motion seconded.

THE SPEAKER: It is moved and seconded that the original resolution, also the Reference Committee's report, be recommitted to the Reference Committee for subsequent report to this House.

Seconded and carried.

81. Report of Reference Committee on the Report of the President

Section 4

DR. GORDON HEYD, New York: The report of the President contains no recommendation and your Committee is pleased to record that the analysis of the work of the Society, during the past year, has been praiseworthy and in keeping with the traditions of the Society.

The various activities of all of the officers and committees have been praiseworthy.

It is moved that the report of the President be filed as a testimonial to the successful work of the year.

I move the adoption of the Reference Com-

mittee report.

Seconded and carried.

82. Report of Reference Committee on Report of Committee on Public Relations

DR. F. W. HOLCOMB, Chairman: I know that this subject matter has been touched upon by some resolutions that have been introduced today. However, your Reference Committee wishes to submit the following report on the report of the Committee on Public Relations. This Committee has studied carefully the report that the Committee on Public Relations has no recommendations to make in regard to the care and examination of school children with defective eyesight. We would call attention to the fact that this Committee feels that a change in the law would be advisable by the following amendments: that any child whose central visual acuity cannot be corrected better than 20/30 by lenses shall be referred to his physician for examination and treatment.

We recommend the adoption of this resolu-

tion. Seconded.

Dr. ARTHUR J. BEDELL, Albany: Another question of information: may I ask what that

DR. F. W. HOLCOME: That means, Dr. Bedell, that the Committee feels it advisable to make it compulsory to refer to physicians for examination and treatment children whose eyesight cannot be corrected better than 20/30, in order to perhaps avoid the early disease. A great

many of these children we feel are going to be examined anyway by optometrists, and we feel that this resolution would help in this matter.

DR. ARTHUR J. BEDELL, Albany: Mr. Speaker and gentlemen: It seems to me that if you place that interpretation upon this Act you are thereby acknowledging the ability of optometrists to do certain things that we who are ophthalmologists believe they are not capable of doing, and it brings back the question whether we as physicians recognize the need of medical care for all children in that field or in other fields. I believe it would be a mistake to pass this in the form of the present resolution and I sincerely trust that it will be disapproved and referred back to the next year's Committee for further study and report before this House sets its stamp of approval upon such action. I so move.

Dr. Joseph C. O'GORMAN, Erie: I understand the Committee on Public Relations reported no recommendation on this serious subject as to the eye examination and care of school children. For years and years it has been the subject of controversy. As I take it, the amendment offered by the committee states that anyone whose visual acuity cannot be corrected beyond 20/30 with lenses shall be referred to a physician for examination and treatment. Now, that will apply to ophthalmologists, optometrists, or anyone who provides glasses. The principle is sound and I do not see why we should wait another year to endorse it. To make myself clear, visual acuity is the only thing that is considered by law in the active vision. We are all aware that it does not comprise field and depth perception, which may make up this visual acuity. The optometrist wants to be doctor and ophthalmologist; the chiropractor wants to be a doctor and everybody wants to be a doctor. Now, they have gone to the legislature and gotten laws across. They promulgated and propagandized until they obtained the legal status of going into the schools and examining our school children. If this amendment can be enacted into law so that anyone who cannot correct vision beyond 20/30 shall refer that child to its physician for examination and care-we all know that every ophthalmologist knows-he sees it repeatedly -neglected cases come into his office, so I feel that this recommendation should be adopted, and I believe it is sound in principle and I think the Committee is to be commended for turning in such a recommendation and it should be enacted into law.

A Voice: Not being an ophthalmologist I am a little bit confused. As I understood Dr. Bedell's point it was that by the action recommended we were approving optometrists, which group are now legally entitled to do certain types of work. I take it that Dr. O'Gorman's point is that we should control them further. It would seem to me that we should control them and should not approve them. Therefore, it looks as if we should study the matter still further.

THE SPEAKER: The motion to recommit is before you.

Seconded and carried. The motion is carried and it is referred back to the Committee

for further study and report at the next House

of Delegates.

Dr. F. W. Holcomb: With respect to the second matter of the report, the Committee would concur that it would not be practical or informative for insane or tubercular hospitals to report, at stated intervals, to the family physician on the condition of their patients.

In regard to the third resolution, we also heartily concur in the recommendation of the Committee that Community Health-Relations Councils should be organized in each county whose functions would be such as defined in

the report.

We, therefore, recommend that the House of Delegates go on record as being in favor of such Councils, and request the Committee on Public Relations to take such steps as may be necessary to set up such Community Health-Relations Councils in each County Society.

I move the adoption of this recommendation.

Seconded and carried.

Dr. F. W. Holcomb: Your Committee would heartily endorse the recommendation at a closer relationship between the Grievance Committee and the Legal Division be maintained in order to coordinate the information obtained by both Committees regarding the unethical conduct on the part of physicians and other matters of similar nature and that such information should be sent to the Chairman of the Public Relations Committee of the County Societies and that this information in turn be relayed to the individual members of these County Societies.

This Committee, therefore, is in hearty accord with the Committee on Public Relations and recommends that their recommendation,

namely,

1. That closer relationship between the Public Relations Committee, Grievance Committee,

and Legal Division, be established.

2. That after a study of the causes of these cases is made, such information, in general form, be presented to the Chairman of the Public Relations Committee of each County Society when and if such communication receives the endorsement of the House of Delegates, the Council and/or the Executive Committee.

3. Regarding Hospital Interns: In regard to this matter, while agreeing with the Committee that this matter may require further study, we are still of the opinion that all interns should be compelled to be licensed in the State of

New York.

I move the adoption of this recommendation.

Seconded.

Dr. Arthur J. Bedell, Albany: I see no reason in the world why interns should be required to be licensed in the State of New York. Interns are neither hospital agents nor agents of the attending physicians and surgeons. We can use interns anywhere. It is part of their training. I do not think that we should require that interns be licensed in the State of New York.

Dr. Kevin, Kings: This question has been a mooted one with the State Board of Social Welfare. It is a question that is rather delicate to deal with. If you pass this resolution it will prevent those southern men, those western men,

those eastern men outside of the State of New York from being eligible to membership as an intern in any hospital in the State of New York. You have got to think of the reaction of such action by the State Society. Already our Board has established some rules regarding the intern and I am sorry that Dr. Warren of the Long Island Medical College, who is vitally interested in this subject, is not here to place the position of the hospital before you on this question.

I move you, sir, that this matter be referred back to the Committee and a report made next year.

Seconded and carried.

Dr. F. W. Holcomb, Chairman: The question regarding foreign physicians has been gone into so thoroughly tonight that I think we can omit our report on that.

THE SPEAKER: It is before a reference committee now.

DR. F. W. HOLCOMB: Regarding the Legal Profession: your Reference Committee feels that closer cooperation between the legal and medical professions, is certainly desirable and the Committee recommends that a joint meeting of the two professions be held by the County Associates at least once a year.

I move the adoption of this recommendation. Seconded and carried.

Dr. F. W. Holcomb: Concerning the examination of school children by the State Department of Education, this matter has also been under a great deal of discussion and I believe that it has been referred back for further study.

Dr. F. W. Holcomb: Your Reference Committee heartily endorses the work of the Sub-Committee on the Deaf and Hard of Hearing. We recommend that the study and work be continued and "that the Governor of the State of New York be petitioned to appoint a committee which is to include members of the Medical Society of the State of New York, to thoroughly investigate the problem of the care of the deaf and hard of hearing children of the State.

I move the adoption of this recommendation. Seconded and carried.

Dr. F. W. Holcomb: In conclusion we wish to congratulate the Committee on Public Relations on the vast amount of constructive work which they have accomplished in the past year, and move the adoption of this report as a whole as amended.

Seconded and carried.

83. Mutual Aid Associations—Schedule of Fees

Sections 26-66

DR. EDWARD C. PODVIN, Bronx: On the resolution presented by Dr. McGoldrick of Kings concerning the Consolidated Edison Company matter, our previous recommendation was:

"Resolved, that the Medical Society of the State of New York recommend that the principles of free choice of physicians and fair remuneration as expressed in the present Workmen's Compensation Law should govern

all contracts with mutual aid and similar organizations."

Now we have added:

"Resolved, that it shall be considered unprofessional and unethical for any physician to make or enter into any contract, written or oral, in violation of this principle. Be it further

"Resolved, that any institution which engages in, encourages or permits by accessory participation any contract in violation of this principle shall be regarded as operating contrary to the public welfare and the interests of the medical profession, and as tending to lower professional standards in the community.

I move the adoption of this report.

Seconded and carried.

84. Report of Reference Committee on the Report of the Committee on Economics

DR. JAMES F. ROONEY, Albany: The brevity of the report of the Committee on Economics does not in any way indicate the vast amount of work which it has done.

The report of the Committee contains but one recommendation in respect to which your Reference Committee reports as follows:

We endorse the recommendation of the Committee on Economics as presented in its report that the Society formulate within the framework of the principles of the American Medical Association and of the Booth Report of the Medical Society of the State of New York, a program of medical care applicable to different communities. All features of such a medical program, demonstrated by experience to be sound and suitable to local conditions and in accordance with the above principles may then be adopted as a plan for medical care in any given locality.

I move you the adoption of that recommendation.

Seconded and carried.

Dr. James F. Rooney, Albany: There has been some question about the overlapping of committee work and your committee desires to make this statement: that any committee under the direction of a Chairman with dynamic personality and great energy, may unwittingly overlap in the work of other committees. This seems to be due to a lack of coordination and correlation of the work of committees between whose boundaries, as set by the By-Laws, there is a twilight zone of indefinite limitation, the invasion of which by either committee alone, without the cooperation of both, may lead to hazardous results. Your committee merely wishes to state this, as I think has been brought clearly before your notice in the last half hour with relation to the work of some other committees. It does not want to engender criticism which is undeserved. This would not happen if there were closer work, closer correlation of the chairmen of the various committees. Your Reference Committee further desires to express its great appreciation of the extremely valuable work that has been done and is being done and will be done by the Committee on Economics of this Society.

I move the adoption of our report as a whole.

Seconded and carried.

85. Licensing Foreign-Educated Physicians Sections 13-17-56

DR. EDWARD C. PODVIN, Bronx: This is the final resolution presented to Reference Committee on New Business A, I will simply read to you the resolution as presented by Dr. Kaliski with some changes:

We, therefore, recommend the resolutions as introduced by Dr. Kaliski slightly amended and

reading as follows:

"WHEREAS, it has become apparent that the number of physicians obtaining licenses to prac-tice medicine in the State of New York by endorsement of their credentials is increasing inordinately, and

"Whereas, a considerable number of physicians, graduates of European medical schools. are being licensed by endorsement of their credentials without a professional examination, and

"WHEREAS, graduates of our own medical schools and licensed physicians of many other states are required to pass a professional examination before being licensed to practice in this state, and

"WHEREAS, the maintenance of high professional standards and public health and welfare require that graduate physicians be required to establish their competence by submitting to a thorough examination before being licensed to practice the healing art, and,
"Whereas, some who have been licensed by

endorsement could hardly be considered as eminent or unusually distinguished; therefore, be it

"Resolved, that the Medical Society of the State of New York in annual meeting assembled deplores the excessive number of licenses by endorsement and requests the authorities of the Department of Education to cease granting licenses by endorsement except in very excep-tional circumstances and where the eminence of the applicant is generally unquestioned. Be it further

Resolved, that we approve the passage of bills introduced in the legislature looking

towards these ends."

move the adoption of the resolution.

Motion seconded.

Dr. EDWARD PODVIN, Bronx: After free discussion by Drs. Harry Aranow of New York, Grant C. Madill of Ogdensburg, James F. Rooney of Albany, and David J. Kaliski of New York, the question was put to a vote by the Speaker as follows:

THE SPEAKER: Are you ready for the question? The question before the House is the report and recommendation of the Reference Committee in the form of a resolution. Those in favor of the adoption of the Reference Committee's report kindly say "aye"; those opposed, "no." It is carried.

86. Radio Broadcasting Section 94

.Dr. James F. Rooney, Albany: I would like to present the following resolution:

"That the House of Delegates approve the policy of this Society in sponsoring newspaper and radio programs and authorize the Committee on Trends to utilize the radio stations for the broadcasting of programs, the details of which shall be effected under the direction of the Committee with full power to act."

THE SPEAKER: This is a supplemental report of the Committee on Trends and the Chairman of the Reference Committee on Trends will take care of it. It is referred to the Reference Committee on Trends.

87. Lien Bill Section 92

Dr. Arthur F. Heyl, Westchester: "WHEREAS, the physician and nurse are equally entitled, with hospital, to the protection of the lien law, and

"WHERAS, there is no reasonable assurance that the enactment of a lien bill for hospitals only would or could be followed by subsequent enactment of liens for physicians and nurses,

therefore, be it

"Resolved, that the Medical Society of the State of New York should henceforth refrain from supporting, under any circumstances, any lien bill which does not include protection for

physicians and nurses, and be it further "Resolved, that the State Medical Society instruct its Legislative Committee to endeavor to reach an agreement with the State Hospital Association, mutually pledging both groups to the support of a lien bill including hospitals, physicians and nurses."

THE SPEAKER: Referred to Reference Com-

mittee on New Business C.

88. Prevention of Asphyxial Death Section 99

DR. J. LEWIS AMSTER, Bronx: "WHEREAS, the aims and purposes of the Society for the Prevention of Asphyxial Death were approved by the Medical Society of the State of New

York, May 14, 1934.
"Whereas, these aims and purposes were later approved by the House of Delegates, of the American Medical Association, June 12,

"WHEREAS, the Society for the Prevention of Asphyxial Death was invited by the Section on Scientific Exhibits of the American Medical Association, to prepare an Exhibit for the regular meeting of the American Medical Association, which was held at Atlantic City in June,

1935.
"Whereas, the Scientific Exhibit of the for eight booths on the Prevention of Asphyxial

Death at this Exhibit.

"Whereas, a favorable impression was created by this Exhibit, and the need for an organized movement to prevent Asphyxial Death was

emphasized.
"Whereas, it has been satisfactorily established that asphyxiation constitutes a major medical problem, representing a mortality of at

least 50,000 deaths a year.

"WHEREAS, a National Committee on Hospitals has been established by the S. P. A. D., consisting of 300 hospital superintendents from forty-five states, as well as a National Committee on Anesthesia, representing more than fifty per cent of the physicians registered as anes-thetists in the 1934 directory of the American Medical Association, therefore,

"Be It Resolved, that the House of Delegates of the American Medical Association, at the Kansas City meeting to be held in May, 1936, be petitioned to create a Committee on Asphyxia for the further study of this problem."

THE SPEAKER: Referred to Reference Com-

mittee on New Business A.

89. Regional and General Anesthesia Section 100

Dr. J. Lewis Amster, Bronx: "Whereas, in recent years the study and application of regional and general anesthesia has become a highly specialized division of surgery, and

"WHEREAS, experimental and clinical studies have been carried out in these fields and great advances in the administration of anesthetics have been made, which have materially helped to reduce the morbidity and the mortality rate of poor surgical risks, and

"WHEREAS, a special committee of the American Medical Association has recommended the recognition of anesthesia as a specialty by component groups of the American Medical

Association,

"Therefore, Be It Resolved, that a one-day session on regional and general anesthesia be established as a regular part of the surgical section of the Medical Society of the State of New York at its annual meeting.

THE SPEAKER: Referred to Reference Committee on New Business A.

The House of Delegates thereupon adjourned to reconvene at 9:30 A. M. April 28, 1936.

ADJOURNED SESSION OF THE HOUSE OF DELEGATES

Tuesday, April 28, 1936, 9:30 A.M.

The Speaker called the meeting to order at

The Assistant Secretary called the roll, and

the following Delegates responded:
Frederic C. Conway, Emerson C. Kelly, Edgar A. Vander Veer, Nathaniel H. Fuller, J. Lewis Amster, Edward R. Cunniffe, Louis A. Friedman, Vincent S. Hayward, Milton J. Goodfriend, William Klein, Moses H. Krakow, Edward C. Podvin, Samuel M. Allerton, Chalmer J. Longstreet, Joseph P. Garen, Harry S. Bull, Edgar Bieber, DeForest W. Buckmaster, Reeve B. Howland, Leo F. Schiff, Charles J. Kelley, Robert Brittain, William A. Krieger, Aaron Sobel, Herbert H. Bauckus, James H. Borrell, John T. Donovan, James H. Donnelly, Albert A. Gartner, Harry C. Guess, John C. Brady, Joseph C. O'Gorman, Daniel C. Munro, Charles C. Trembley, Sylvester C. Clemans, Peter J. Di Natale, Marion K. G. Colle, Harold F. Buckbee, Frank R. Henne, Charles A. Anderson, Robert F. Barber, John L. Bauer, Bernard B. Berkowitz, Thomas M. Brennan, E. Jefferson Browder, John B. D'Albora, Benjamin Davidson, Harry Feldman, Herbert C. Fett, ward C. Podvin, Samuel M. Allerton, Chalmer Son Browder, John B. D'Allora, Benjamin Davidson, Harry Feldman, Herbert C. Fett, Samuel S. Fischoff, Simon Frucht, Henry Joachim, Walter D. Ludlum, Thomas A. Mc-Goldrick, John J. Masterson, Joseph Raphael, J. Sturdivant Read, Irving J. Sands, Charles E. Scofield, Joseph Slavit, James Steele, Alec N. Thomson, F. Edward Jones, LeGrand A. Da-

mon Robert L Crockett, Clarence V Costello, William A MacVay, Willard H Veeder, Ed-ward T Wentworth, Warren Wooden, Horace M Hicks, Louis H Bauer, George A Newton, M Hicks, Louis H Bauer, George A Newton, Albert H Aldridge, Walter P Anderton, Clarence G Bandler, Emily D Barringer, Milton A Bridges, Edward M Cole, Jr, Adolph G De Sanctis, Ten Eyck Elmendorf, Charles E Farr, Julius Ferber, B Wallace Hamilton, John A Harttvell, Alfired M Hellman, David J Kaliski, I rederick C Keller, J Stanley Kenney, Otto H Leber Oscir L Levin, Louis Lewis, William M Patterson Nathan Ratnoff, N Thomas Soal, DaVutt Stetten William A Peart Rich nam M Fatterson Nathan Rathoft, N Thomas San DeWitt Stetten Vulliam A Peart, Rich ard H Sherwood, Edwin M Griffith, William Ilale, Jr., Andrew Slovin, John J Buettiner, William W Street, Albert G Swift, Homer J Knickerbocker, M Renfrew Bradner, Moses A Stivers Harwood L Holls, Floyd J Atwell, Henry W Miller, Morris S Bender, Henry C Courten, James M Dobbins, W Guernsey Frey Lr. Harry P Mencken James R Reuling Jr. Courten, James M Dobbins, W Guernsey Frey, Jr, Harry P Mencken James R Reuling, Jr, John D Carroll, Clement J Handron, Arthur S Driscoll, Stanley C Petitit, George A Leitner, George S Towne Dudley R Kathan William C Treder John J Beard Rollin O Baker, I Guard M Wellbery, Leon M Kysor, Herbert B Smith Coburn A L Campbell, Albert E Payne, Ralph S Breakey, Guy S Carpenter, Norman S Moore, Frederic W Holcomb, Morris Maslon, Roy E Borrowman Ralph Sheldon Fred Brillinger, Robert B Hammond, Arthur F Heyl Merwin E Marsland, Romeo Roberto. F Heyl Merwin E Marsland, Romeo Roberto, Louis L Klostermyer, Bernard S Strait The following Officers, Trustees, and Chair

The following Officers, Trustees, and Chair men of Standing Committees were present Frederic E Sondern, Floyd S Winslow, Thomas H Cunningham, James H Borrell, Damiel S Dougherty Peter Irving, Charles H Goodrich, George W Kosmak, Samuel J Kopetzky, James M Flynn Harry R Trick James T Rooney, George W Cottis Nathrin B Van Etten, William A Grout, Harry Aranow, Thomas P Farmer, Frederic E Elhott, Chas Gordon Heyd Terry M Townsend, Carl Boet tiger, Augustus J Hambrook, John P J Cummins, Leftoy F Hollis John E Wattenberg, Richard H Sherwood
The following Ex-Presidents were present

The following Ex-Presidents were present Martin B Tinker, Grant C Madill, J Richard Kevin James F Rooney, Arthur W Booth, Orrin Sage Wightman, Nathan B Van Etten, George M Fisher, Harry R Trick James N Vander Veer, William H Ross William D Johnson, Chas Gordon Heyd, Frederick H I laherty, Arthur J Bedell

90 Tellers

THE SPEAKER There being a quorum present the next order of business is the election of Officers

The Secretary announced the tellers Frederick C Keller, Chairman, John L Bauer, Arthur F Heyl, Bernard S Strait, E T Wentworth

91 Election of Officers

The following officers were elected President Elect, Charles H Goodrich, Vice President, Guy S Carpenter, Second Vice-President, Moses A Stivers, Secretary, Peter Irving, Assistant Secretary, Edward C Pod vm, Treasurer, George W Kosmak, Assistant Treasurer, Aaron Sobel, Speaker, Samuel J Kopetzky, Vice Speaker, James J Flynn, Chairman Committee on Scientific Work, William A Groat, Chairman Committee on Legislation, Homer L Nelms, Chairman Committee on Economics, Frederic E Elliott, Chairman Committee on Public Health and Medical Edu-cation, Thomas P Farmer, Charman Com-mittee on Public Relations, Augustus J Ham brook, Trustee Harry R Trick

AMA Delegates

The following were elected Delegates to the American Medical Association for 1937-1938 American Medical Association for 1937-1936
Floyd S Winslow, William D Johnson,
Thomas P Farmer, Edward R Cunnifte, Grant
C Madill, Thomas H Cunningham, Frederick
H Tilaherty, James H Borrell, Terry M Townsend and George W Kosmak

The following were elected Alternates to the American Medical Association for 1937-1938

John J Masterson, James R Reuling, Arthur
J Bedell, James F Rooney, Robert F Barber, J Richard Kevin B Wallace Hamilton George Newton William A Krieger, and William Treder

It was moved seconded and carried that the appointment of the Chairman of the Committee on Arrangements be referred to the Council with power to act

Dr. Dougherty I move that this House of Delegates send a telegram of sympathy to

Dr Warren, who is very ill

Motion seconded and carried

The following telegram was read "Dr D S Dougherty, Secretary Medical Society of the State of N Y, care Waldorf-Astoria, N Y Buffalo Advertising Club con sisting over one thousand members extends greeting to the Medical Society of the State of New York We earnestly hope serious consideration will be accorded Buffalo's invita-tion for your 1937 meeting Eugene L Klock, President, Greater Buffalo Advertising Club" The Speaker There are a few resolutions

in the hands of the Reference Committees and

those reports are ready now

92. Lien Bill Section 87

DR B WALLACE HAMILTON New York Dr Heyl of the County of Westchester in troduced the following resolution

WHEREAS the physician and nurse are equally entitled, with hospital, to the protec-

tion of the Lien Law, and

'WHEREAS there is no reasonable assurance that the enactment of a Lien Bill for hospitals only would or could be followed by subsequent enactment of liens for physicians and nurses, therefore be it

"Resolved, that the Medical Society of the State of New York should henceforth refram from supporting, under any circumstances, any hen bill which does not include protection for

the physicians and nurses, and be it further "Resolved, that the State Medical Society instruct its Legislative Committee to endeavor to reach an agreement with the State Hospital Association, mutually pledging both group to the support of a Lien Bill including hospitals, physicians and nurses."

Your Reference Committee C approves the resolution in re Lien Bill introduced by Dr. A. F. Heyl of the County of Westchester and recommends that the Committee on Legislation be so advised.

I move its adoption.

Motion seconded and carried.

93. Clinics for Relief Clients Section 43

DR. THOMAS A. McGOLDRICK, Kings: The following resolution, introduced by Dr. A. F. Heyl of the Westchester County Society, was referred to Reference Committee B:

"Whereas, the regular use of voluntary hospital clinics for routine care and treatment of persons who are public charges, constitutes an unfair burden upon and exploitation of both the private physician and the voluntary hospital, and places the attending staff of the hospitals in competition with themselves and with the Medical Profession generally, be it

"Resolved by the Medical Society of the County of Westchester that the Medical Society of the State of New York be hereby requested to declare it the sense of the State Medical Society that the routine use by public welfare agencies of hospital clinics attended gratuitously by private physicians is contrary to sound social, economic and medical policy, and be it further

"Resolved that the Medical Society of the State of New York should undertake through appropriate channels to bring about a change of policy in respect to the use of hospital clinics by welfare agencies throughout the State, substituting therefor the use of private physicians' services in their offices at fee rates mutually determined to be fair and equitable."

Reference Committee B approves the resolution and I move its adoption.

Motion seconded and carried.

94. Radio Broadcasting

Section 86

Dr. John E. Wattenberg, Cortland: Reporting on the resolution introduced by Dr. Rooney which reads as follows:

"Resolution proposed by the Committee on Trends in accordance with instruction of the Executive Committee.

"That the House of Delegates approve the policy of this Society taking part in sponsored or unsponsored radio programs and authorize the Committee on Trends to arrange with radio stations for the broadcasting of these programs, details of which shall be formulated under the direction of that committee with full power to act."

Your Reference Committee approves the resolution and I move its adoption.

Seconded and carried.

95. Bureau of Publicity

Section 96

THE SPEAKER: Under new business we have this resolution introduced by Dr. Colie of the County of New York:

"Whereas, a resolution was introduced and approved by the House of Delegates for improving the administrative functions of the Society.

"Therefore, Be It Resolved that the Bureau of Publicity be placed under the direct control of the Executive Committee."

This will be referred to Reference Committee C.

96. Bureau of Publicity

Section 95

Dr. B. Wallace Hamilton, New York: Your Committee begs to report on the resolution under new business introduced by Dr. Colic of the County of New York regarding the placing of the Bureau of Publicity under the control of the Executive Committee, and recommends its approval by the House of Delegates.

I so move. Seconded.

DR. ROONEY, Albany: I move a substitute for the motion of the Reference Committee Chairman that this recommendation be laid on the table.

Motion seconded and carried.

97. National Museum of Hygiene and Health at George Washington World's Fair

Section 98

Dr. James R. Reuling, Jr., Queens: The Medical Society of the County of Queens pre-

sents the following resolution:

"Whereas, the president was empowered by the Counsel to appoint a committee of three to represent the State Society in cooperating with committees from the County Medical Societies from the metropolitan area to make a survey and to take preliminary steps for the proper representation of organized medicine at the George Washington World's Fair in 1939,

"Therefore, Be It Resolved, that the Committee be appointed during this session and instructed by this House of Delegates to proceed forthwith to take measures looking towards a permanent National Museum of Hygiene and Health at the George Washington World's Fair."

THE SPEAKER: This resolution will be referred to Committee C.

98. National Museum of Hygiene and Health at George Washington World's Fair

Section 97

Dr. B. Wallace Hamilton, New York: Your Committee C considered the resolution introduced by Dr. Reuling of the County of Queens in reference to the appointment of a Committee by the President in re the National Museum of Hygiene and Health of the George Washington World's Fair, and approves thereof. I so move.

Motion seconded and carried.

THE SPEAKER: Any further reports?

99 Prevention of Asphyxial Death Section 88

DR EDWARD C PODVIN, Bronx Your Ref erence Committee A reports on the resolution introduced by Dr J Lewis Amster of the Bronx County Medical Society on the subject of "Pre-vention of Asphyxial Death" which reads as

WHEREAS the aims and purposes of the Society for the Prevention of Asphyxial Death Society for the Prevention of Asphy data Bath, were approved by the Medical Society of the State of New York, May 14, 1934,
"Whereas these aims and purposes were

Inter approved by the House of Delegates of the American Medical Association, June 12

1934, WHEREAS, the Society for the Prevention of Asphyxial Death was invited by the Section on Scientific Exhibits of the American Medical Association to prepare an exhibit for the regu lar meeting of the American Medical Asso-ciation which was held at Atlantic City in June 1935,

"WHERFAS the scientific exhibit of the American Medical Association subsidized space for eight booths on the Prevention of Asphy virl

Death at this exhibit

'WHEREAS, a favorable impression was cre ated by this exhibit, and the need for an organ ized movement to prevent asphyxial death was emphasized

WHEREAS, it has been satisfactorily established that asphyxiation constitutes a major medical problem representing a mortality of

at least 50 000 deaths a year,

WHEREAS a National Committee on Hos pitals has been established by the SPAD, consisting of 300 hospital superintendents from forty five states as well as a National Committee on Anesthesia, representing more than fifty per cent of the physicians registered as An esthetists in the 1934 Directory of the American Medical Association,

Therefore, Be It Resolved, that the House of Delegates of the American Medical Associa tion at the Kansas City meeting to be held in May, 1936, he petitioned to create a Com mittee on Asphyxia for the further study of

this problem

You were informed yesterday that this matter is agreeable to the AMA and therefore your

Committee approves the resolutions

Be It Resolved that the House of Delegates of the American Medical Association, at the Kansas City meeting to be held in May, 1936, be petitioned to create a Committee on Asphyxia for the further study of this problem" I move its adoption

Motion seconded and carried

100 Regional and General Anesthesia Section 89

DR EDWARD C PODVIN, Bronx Your Committee A has a report on the resolution intro duced by Dr J Lewis Amster, of the Bronx County Medical Society on the subject of Regional and General Anesthesia

This resolution is as follows

WHEREAS in recent years the study and application of regional and general anesthesia has become a highly specialized division of surgery, and

WHERLAS, experimental and clinical studies have been carried out in these fields and great advances in the administration of anesthetics have been made, which have materially helped to reduce the morbidity and the mortality rate of poor surgical risks, and

'WHEREAS, a special committee of the American Medical Association has recommended the recognition of anesthesia as a specialty by com ponent groups of the American Medical Association,

"Therefore Be It Resolved, that one session on regional and general anesthesia be fixed as a part of the program of the Medical Society of the State of New York at the annual meeting in 1937

Your Committee recommends that this be referred to the Council for consideration and

I move the adoption of the report

Motion seconded and carried

THE SPEAKER I have a communication here signed by Dr Bedell Dr Sondern, and Dr Winslow, which reads

"We, the undersigned propose for Honorary Membership of the Medical Society of the State of New York, the Right Honorable Lord Horder '

Dr. Arthur J Bedell Albany I move you sir, that the By-laws be suspended so that we may proceed to action instead of holding it over, as would be necessary if we followed the strict letter, for another year

Motion seconded and carried

Dr. Bedfill I move you now, sir, that hon orary membership be extended to the Right Honorable Lord Horder

Motion seconded and carried

THE SPEAKER His Lordship is now an hon orary member of the Medical Society of the State of New York

101 Retired Members

THE SPLAKER We are now ready to hear from the Secretary on the subject of retired membership

THE SECRITARY I have a number of applications for retired membership Edward B Angell Rochester, Robert H Ash, Canastota A L Benedict Buffalo, John D Bonnar Buffalo Grove P M Curry, Mount Kisco Emors A Dıdama Cortland William E Dold, New York, J Henry Dowd, Buffalo, Sydney A Dunham Buffalo Harry E Dunlop, Brooklyn, Dunham Buffalo Harry E Dunlop, Brooklyn, Edward D Ferris, Brooklyn, Simon Flexner, New York, Frederick L Forker, Binghamton, Samuel E. Getty Grunte Springs, Frank M Gipple, Williamsville Onslow A Gordon, Sr. Brooklyn, Clark W Greene, Binghamton, Thomas J Harris New York, Henry Heiman New York Emerson W Hitchcock, Auburn Oscar P Honegger, New York, John Horn, New York, Frank P Hough, Binghamton, Joseph B Hulett, Middletown, Harrie A James New York, George Q Johnson Ardsley, Milton R. Joy, Cazenovia, Caroline Lichtenberg Buffalo, Joseph E Lumbard, New York, James M MacEvitt, Brooklyn; John H Martin, Binghamton, Alfred Meyer, New York, Martin, Binghamton, Alfred Meyer, New York,

Robert T. Morris, New York; Roswell K. Palmerton, Deposit; Willis I. Purdy, Middletown; Lester H. Quackenbush, Binghamton; Martin Rehling. New York; Samuel L. Smith, Binghamton; Henry B. Swartwout, Port Jervis; Elmer E. Thurber, Brainardsville; Hiram N. Vineberg, New York; Nathan A. Warren, Yonkers; Charles D. Young, Rochester; John T. Howell, Newburgh; Emory H. Wood, Salisbury Center.

THE SPEAKER: I move that these gentlemen be elected to retired membership.

Motion seconded and carried.

THE SPEAKER: Any further reports?

THE SPEAKER: The Speaker desires to express his sincere thanks to the House for the extreme courtesy with which you have brought your measures before the House, and the respect with which you have received the decisions that have been made.

There being no further business, the House

adjourned.

SAMUEL J. KOPETZKY, Speaker DANIEL S. DOUGHERTY, Secretary

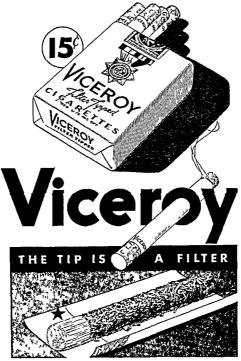
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Even more interesting is the Fiesta de la Raza on October 12. This, as the name indicates, feats the virtues and characteristics of the race and extends over several days. A temporary village is erected around the "Estero Salado," a salt water arm of the Pacific, and here native customs, dances, music, games, and



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(Continued on page xxvii)



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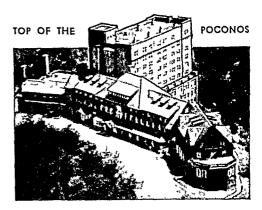
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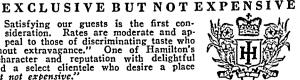
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XXIX

(Continued from page xxvii)
think we can expect at least that much improvement. And remember, 25 per cent is something very substantial. It may of course be
greater, but for the moment I feel safe in

taking that as a minimum."

Mr. Mathews believes the Canadian West is this year a stronger attraction than usual to the American traveler. "The pioneer instinct," he added, "is planted deep in Americans and Canadians alike. And as this summer marks the fiftieth year of rail travel in Canada, it is natural that the vacationist should be eager to see the Canadian Rockies. These vast mountains remained a barrier until the completion of the C.P.R. turned them into the playground they have since become. That is what adds interest to Vancouver's jubilee, for this city has become great and prosperous as the Pacific terminus of the railway."

German Rail Traffic Increased

With passenger mileage one-third higher than for all our class-one roads, German Railroads last year had a record of fifteen hundred million passengers riding over twenty-four billion passenger miles.

The German Railroad Company, with 33,957 miles of tracks, is still by far the world's largest single railroad enterprise. An addition of 286.4 miles to the trackage in 1935 was due to the return of the Saar railroads to the Reich. The railroad owns and operates 21,656 locomotives, 1,561 Diesel-electric cars of the typo of the famous Flying Hamburger, 60,341 passenger cars, and 596,598 freight cars. The personnel of the railroad reached 656,200 at the end of 1935.

The German Railroad Company has the

fastest individual trains and the fastest all around passenger service. When it introduced streamlined Diesel-electric trains two years before any other road had streamlined rolling stock, the "Flying Hamburger" made 99.42 m.p.h. The improved types now have 125 miles an hour sustained speed on straight stretches.

Americans attending the Olympics will experience traveling extremely fast and so smoothly that the movement of the train is discernible only by viewing the fast slipping by of the beautiful landscape.

Summer Courses in Vienna

Among the important educational announcements made by the Austrian State Tourist Department, are the following:

(Continued on tage xxxii)

TODAY'S CENTER



Stop at the heart of important social and business New York ... The Waldorf Astoria. Just a few steps from Fifth Avenue shops, art galleries, clubs, Grand Central... fifteen minutes from Wall Street. Rates from \$5 the day.

THE WALDORF-ASTORIA

PARK AVENUE . 49TH TO 50TH . NEW YORK

VISIT Nantucket Island, Massachusetts—30 miles out to sea

A Vacation at Sinsconnet, a quaint hamlet at the Entiern end of the Island, on a bluff overlooking the ocean, offers the lure of quiet restfulness to everyone; including teachers, artists and foremers from every walk of life. All outdoor sports. Wide stretch of moors, Private Bathing Beach.

BEACH HOUSE

A Modernly Equipped 100 Room Hotel attracts visitors seeking refinement, comfortable accommodations, food that is different yet wholesome Rates from \$6.00 daily, including meals, with reductions for longer visits.

A search in a convenient library will reveal an interesting history of this historic and picturesque spot or our booklet will be sent on request.

OWNERSHIP MANAGEMENT

It's cool at

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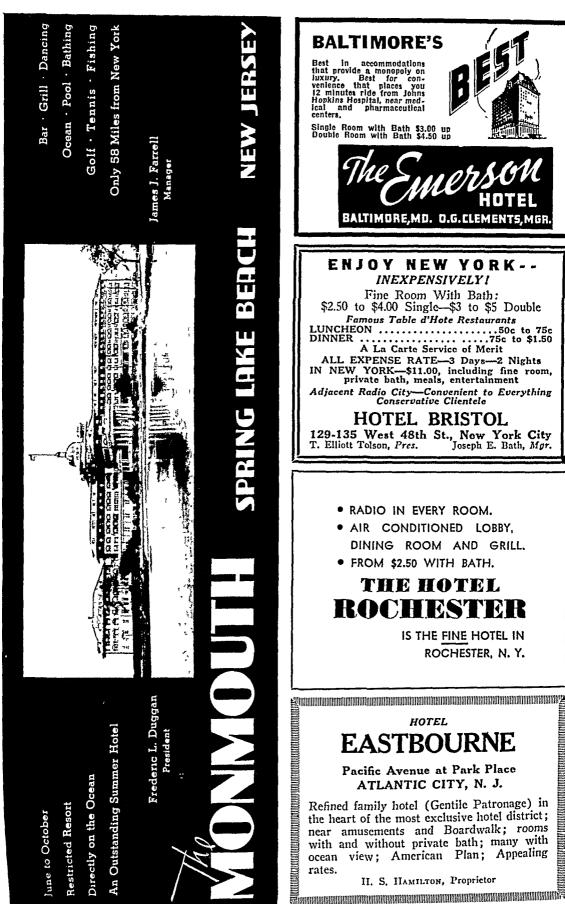
Spend your summer's outing here situated 15 miles from the Mainland off Rhode Island Coast. Two daily boats from New London, Providence and Newport.

SPRING HOUSE

An attractive hotel, every room with bath or running water. All rooms have telephones. Orchestra, dancing afternoons and evenings. Block Island is headquarters for the Atlantic Tuna Club. Finest surf bathing on the coast. Tennis, motoring, golf, flying, fishing.

For further information write: E. R. PAYNE, Manager, Block Island, R. I.

Say you saw it in the "June 15, 1036 issue of the N Y, Stale J. M "



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Best in accommodations that provide a monopoly on luxury. Best for convenience that places you 12 minutes ride from Johns Hopkins Hospital, near medical and pharmaccutical centers. centers.

Single Room with Bath \$3.00 up Double Room with Bath \$4.50 up



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INEXPENSIVELY!

Fine Room With Bath: \$2.50 to \$4.00 Single-\$3 to \$5 Double Famous Table d'Hote Restaurants

A La Carte Service of Merit

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THE HOTEL ROCHESTER

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HOTEL

EASTBOURNE

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Refined family hotel (Gentile Patronage) in the heart of the most exclusive hotel district; near amusements and Boardwalk; rooms with and without private bath; many with ocean view; American Plan; Appealing rates.

II. S. HAMILTON, Proprietor

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A private hotel accommodating only a small select clientele, free from the distractions and social obligations of hotel life. A most ideal retreat for those desiring or requiring a restful atmosphere, and the finest of nourishing fresh home-cooked food. Rates reasonable and furnished on application to the manager—P. W McNeill

Victoria Lodge

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A few selected guests. Informal charm of a Bermudian home. Secluded but near sources of recreation. Food at its best, and rates surprisingly modest.

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Nothing formel—just primarily for rest and freedom from conventional rules, yet equal to satisfying the crave for "social whirl" when desired. Fresh foods, delightful rooms. Special rates for families, and long stays.



The GLADYN

Everything essential to comfort, rest, and wellbeing is provided for a limited number of discriminating guests. A cuisine that assures wellbalanced and tasty meals.

The SUMMERSIDE

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Golf—Bathing—Fishing—Boating—Tennis—Horseback Riding and less strenuous diversions. Home cooking to suit guests, and rates as pleasing.

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Thoroughly modern appointments. Excellent rooms, service, and cuisine, at most moderate rates. Located in the heart of the social and commercial center of the islands, and "next door to everything," yet on a quiet street in the capital city, Hamilton.

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A big, distinctive residence. Liberally equipped with private bathrooms, adjoining large, bright, well-furnished rooms. Three acres of beautiful gardens. Special rates on application.

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Large cheerful rooms; transient or residential; excellent food; room service without extra charge; open roof deck; enclosed solarium; library; children's playroom; private park privileges.

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Suites From \$6.00

Hotel Gramercy Park

52 Gramercy Park North

(East 21st St.)

Tel: Gramercy 5-4320

(Continued from page xxix)

On July 2, the Mozarteum courses in general music, conducting, old key-board music, the theatre, and the dance will be officially opened.

At the Consular Academy, the Psychological Institute of the University of Vienna will conduct in connection with the University of Kentucky, a seminar in psychology from July 13 to August 8.

Summer sessions of the University will also be held in the magnificent Castle Traunsee on German language and culture courses for English-speaking students, July 12 to August 8 and from August 9 to September 15.

German language and liberal art topics will be given at the Andere Rogge Institute of Graz during May, June, July and August, and at the University of Innsbruck in Tyrol from July 27 to August 22.

General courses in dancing, music, eurhythics, and gymnastics for students as well as for instructors will be held by the Hellerau Laxenburg School in Castle Laxenburg during June, July and August.

The State School of Applied Arts will present courses in all phases of applied art from July 4 to August 14.



MT. WASHINGTON

WHITE MOUNTAINS

NEW HAMPSHIRE

Discriminating people return each summer to the Crawford House at Crawford Notch, famous for its location, its clientele, its atmosphere and its service. Rates include room and meals, as low as \$5.00 a day; with bath one person as low as \$12. Season, July, Aug., Sept. Booklet and diagnosis of weekly and seasonal rates on request.

BARRON HOTEL CO.



CRAWFORD HOUSE
CRAWFORD NOTCH-NEW HAMPSHIRE

The summer sessions at the Austrian schools all provide arrangements whereby their students may combine formal class study with a wide variety of educational and recreational excursions both into the Austrian Alps and to the various cultural centers.

June 22nd Is Atlantic City Day

Although one can hardly say that Atlantic City differs outwardly at any time of the year, June 22nd does mark a particular change in

the "World's Playground"

On this day it opens officially for the summer season which is then in full sway until the 22nd of September. The bathing beaches are dotted with bathers in place of the previous sprinkling of equestrians. The board-walk takes on a garden atmosphere with colorful summer fashions on men and women. Features of entertainment are enlarged and improved through attracting the most popular talent from the warm cities. The hotels begin to turn people away for want of room, even though there are few places that can compare with Atlantic City's facilities for accommodating guests.

(Continued on next page)



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For those who have never visited the outstanding summer resort, there is much in store for them when they do get around to a visit as sooner or later everyone does. For "old-timers" Atlantic City generally heads the list of places to spend some time at during vacation months.

Travel Brevities

THE SAILING LIST of the Britannic included Dr. F. H. Campbell on a recent Europebound sailing. Among those aboard the Georgic in addition to Lord Horder (recently guest of the Medical Society of the State of New York) as it departed for Europe, were Dr. and Mrs. F. A. Hadley, and Dr. J. W. Cunliffe. The Berengaria had Dr. Daniel Fiske Jones and Dr. E. B. Whitfield on board as it sailed for Europe with an unusually large quota of notables.

PHYSICIANS recently registered at the St. George in Bermuda included Dr. Chas. C. Englehart of Pennsylvania, Dr. A. Pourier of

Hotel Buckminster

Kenmore Square, BOSTON, MA adjoining Fenway Park and within five minu walk of Braves Field—Short distance fi shopping district; Guests may secure base tickets at this hotel upon reservation; Priv Garage—Parking space facilities—Strate point for in and out of Boston—Handy to centres of education—Permanent and Transi—Rates \$2.00 and upwards.

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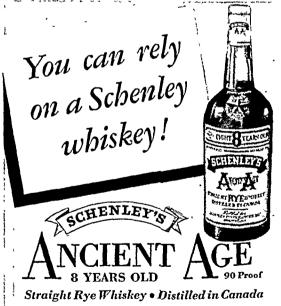
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Long Lake, N. Y.

Massachusetts, and Drs. E. K. Tanner, Alfred O. Persons, and J. S. Kelleher of New York.

HEAVY REGISTERING of doctors at the Elbow Beach in Bernauda included the following from New York: Dr. Louis R. Ferraro Dr. and Mrs. P. Amazon, Dr. Bernard D Kulick, Dr. and Mrs. S. P. Lehr, Dr. Josepl Lozner, Dr. C. Scheib, Dr. and Mrs. A Spence, and Dr. M. Hillel Feldman; and Dr. Clement K. Heberle from Massachusetts, Dr and Mrs. H. F. Swartz of Michigan, Dr Frank E. Tappan of Virginia, and Dr. and Mrs. J. J. Weber of Ohio.

ON THE "QUEEN of Bermuda," Dr. and Mrs. Fred Taussig of Missouri were numbered among the passengers sailing for the "Isles of Rest."

PASSENGERS taking the Grace Line's Cruise to Central America and California included Dr. Rodrigo Samayoa, El Salvador's Secretary of the Treasury, who had been on a financial mission for his country, and Dr. and Mrs. Martin D. Jones of Illinois.

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